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MODERN GEOGRAPHY.

A DESCRIPTION

OF THE

EMPIRES, KINGDOMS, STATES, AND COLONIES;

WITH THE

OCEANS, SEAS, AND ISLES;

IN ALL PARTS OF THE WORLD:

INCLUDING THE MOST RECENT DISCOVERIES,

AND POLITICAL ALTERATIONS.

DIGESTED ON A NEW PLAN.

BY JOHN PINKERTON.

THE ASTRONOMICAL INTRODUCTION

BY THE REV. S. VINCE, A. M. F. R. S.

AND PLUMIAN PROFESSOR OF ASTRONOMY, AND EXPERIMENTAL PHILOSOPHY IN THE UNIVERSITY OF CAMBRIDGE.

THE ARTICLE AMERICA,

CORRECTED AND CONSIDERABLY ENLARGED,

BY Dr. BARTON, OF PHILADELPHIA.

WITH NUMEROUS MAPS,

DRAWN UNDER THE DIRECTION AND WITH THE LATEST IMPROVEMENTS, OF ARROWSMITH, AND ENGRAVED BY THE FIRST AMERICAN ARTISTS.

To the whole are added, a Catalogue of the best Maps, and Books of Travels and Voyages, in all Languages: and an ample Index.

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MODERN GEOGRAPHY.

HAVING thus given a description sufficiently ample, as is presumed, of Europe, the most interesting portion of the globe, that of the remaining three quarters shall be more restricted, as the topics are generally less alluring to the European reader, and in many instances the materials are imperfect. Of some parts of America, and the vast central regions of Africa, little is known: but Asia presents a more extensive theme, and teems with scenes of important events in ancient and modern history.

ASIA.

EXTENT. THIS great division of the earth extends, in length, from the Hellespont to what is called the East Cape; that is from about the 26° of longitude, east from London, into the other hemisphere to near 190° of east longitude, or 170° west from London; being no less than 164° or (taking the degree at a medial latitude) more than 6,500 geographical miles. From the southern cape of Malacca to the cape of Cevero Vostochnoi, which braves the ice of the Arctic ocean, the breadth extends from about 2° of northern latitude to about 77°, or nearly 4,500 geographical miles. If, for the sake of a rude and merely comparative calculation, one sixth part be added for the difference between the statute and geographical mile, the length of Asia in British miles would be about 7,583: and the breadth 5,250.

Of the vast extent of Asia, the ancients entertained most indistinct ideas; and in fact, the discovery of this great division of the world may be said to have commenced with the travels of Marco Polo, the Venetian, in the end of the thirteenth century; and it was not completed, with regard to the eastern extremities, till the recent travels were published in Russia, and the voyages of Beering, Cook, and La Perouse. It is now well known that Asia is limited, on the east, by a strait which divides it from America: and which, in honour of the discoverer, is called Beering's strait. The northern and southern boun-

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daries are the Arctic and Indian oceans, in which last many large islands, particularly that of New Holland, now more classically and properly styled by some *Australasia*,* afford a vast additional extent to this quarter of the globe. The western limits of Asia have already been discussed in the account of the eastern limits of Europe.

ORIGINAL POPULATION. The population of Asia is by all authors allowed to be wholly primitive and original; if we except that of the Techuks or Tchuktchi, who, by the Russian travellers and Mr. Tooke, are supposed to have passed from the opposite coast of America. A few colonies have migrated from Russia to the northern parts, as far as the sea of Kamtchatka: and there are well known European settlements in Hindostan, and the isles to the south-east; but the first serious attempt to colonize what is esteemed a part of Asia, was the recent settlement at Port Jackson. With these and other trifling exceptions, Asia presents a prodigious original population, as may be judged from the following table, which will be found more clear than any prolix discussion on the subject.

LINNÆAN TABLE OF THE NATIONS AND LANGUAGES IN ASIA.

Ordo.	*Genus.*	*Species.*
I. Assyrians.	Assyrians.	Chaldee.
	Arabians.	Hebrew, &c.
	Egyptians.	
II. Scythians.	Persians.	Armenians†.
	Scythians *intra et extra Imaum*, &c.	
III. Sarmats.	Medes.	Georgians.
	Parthians.	Circassians.
IV. { Seres. Indi.	Hindoos.	Northern & Southern, &c.
V. Sinæ.	Chinese.	
	Japanese.	‡

BARBARIC NATIONS FROM NORTH TO SOUTH, AND ACCORDING TO THE DEGREES OF BARBARISM.

VI. Samoieds.	Ostiacs, Yurals, &c.	
VII. Yakuts.	Yukagirs.	(Expelled Tatars, according to Tooke & Lesseps.)
VIII. Koriacs.	Techuks or Tchuktchi.	‖
IX. Kamtchadals.	Kurillians.	**
X. Mandshurs or Tunguses.	Lamuts.	(Ruling people in China.)

* More briefly *Notasia*, from the Greek, as from them we receive the name of Asia: and in such new terms the Grecian language is justly and properly preferred.

† The Parsi and Zend are cognate with the Gothic, Greek, Latin, according to Sir William Jones. Indian Dissert. vol. i. p. 206. The Pehlavi is Assyrian or Chaldaic. Id. 187, 188. 206.

‡ These have a Tataric form and face: they are probably highly civilized Tatars, Monguls, or Mandshurs.

‖ From the opposite coast of America. Tooke's Russia. The Yukagirs are a tribe of the YAKUTS (around Yakutsk), and both are expelled Tatars. Tooke's View, ii. 80. Lesseps, ii. 312.

** These resemble the Japanese.

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Ordo.	*Genus.*	*Species.*
XI. Monguls.	Kalmucs.	Soongars.
		Tonguts.
		Burats, &c.
XII. Tatars or Huns.*	Turks.	Nogays.
	Khasars.	Bashkirs.
	Uzes.	Kirguses or Kaizaks.
	Siberians.	Teleuts.

Besides these numerous original nations, the Malays and Asiatic islanders constitute another large and distinct class of mankind, with a peculiar speech, in the south of the extensive continent of Asia.

PROGRESSIVE GEOGRAPHY. The progressive geography of this quarter of the globe might afford an important and interesting subject of discussion, if treated at due length, as embracing the various discoveries which, at long intervals of time, successively disclosed its vast extent. The most authentic information concerning the knowledge of the ancients is to be found in the geography of Ptolemy; but modern commentators differ in the elucidation of his text. The extreme points of discovery mentioned by Ptolemy are, towards the Indian Ocean, the town of Sina: and, inland, in the parallel of the south of the Caspian, Sera, the metropolis of the Seres. That able geographer D'Anville, has expressed his opinion, concerning Sina, in the following terms:

* After the destruction of Attila's swarms, and the effects of unfortunate inroads, the Huns became subject to the Monguls, who, under Zingis or Genghiz-Khan, Timur, &c. constituted the supreme nation in Asia.

The great share of population which Europe has received from Asia, will appear from the following little table:

PRIMEVAL INHABITANTS.

Ordo.	*Genus.*	*Species.*
I. Celts.	Irish.	Erse, Manks.
	Welch.	Cornish.
	Armorican.	
II. Fins (chief god *Jummala*).	Finlanders.	Permians or Biarmians.
	Esthonians.	Livonians.
	Laplanders.	Votiacs and Chermisses.
	Hungarians.	Voguls and Ostiacs.

COLONIES FROM ASIA.

III. Scythians or Goths. (*Odin*).	Icelanders, Norwegians.	
	Swedes, Danes.	
	Germans.	Swiss, Frisic.
	English.	Flemish, Dutch.
IV. Sarmats or Slavons (*Perun*).	Poles.	Heruli.
	Russians.	Vendi.
	Kossacs.	Lettes.

The inhabitants of France, Italy, and Spain, are also of Asiatic origin, and speak corrupted Roman; which, like the Greek, is a polished dialect of the Gothic, according to Sir William Jones, and other able antiquaries. The Heruli, Wends, and Lettes, used mixed and imperfect dialects of the Slavonic. Critical Review, vol. xxvii. p. 109.

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" The oriental geographers, to whom the country of the Sines must have been well known, comprise its capital in the zone of the first climate; which rising to twenty degrees and a half does not extend to China: but, by an extravagant error *Sinarum Metropolis* has been applied to Nann-kin in the thirty-second degree. The imperial rank of the last mentioned city, to which it did not attain till towards the close of the fourth century, could not have caused it to be thus distinguished by Ptolemy, who lived under the Antonines, about two ages before. The Chinese do not acknowledge the name that we have given to their nation. They are fond of borrowing for the purpose of distinction, the name of some dynasties, whose memory is precious to them: and, above all, from that of Hann, which commenced two hundred and some years before the Christian era, they denominate themselves Hann-nginn, or the people of Hann; and by an idea which they have of the most advantageous situation of their country, they name it Tchon-kouć or the middle kingdom. But the name of Sines is preserved in that of Cochin-China, which, without the alteration that it has suffered on the part of Europeans, is Kao-tsii-Sin. The Arabs have found the name of Sinn in the country where Ptolemy knew the Sines. The name of Singi, which the Indians as well as the Arabs give to the sea which involves this country, is a derivation from the same name. This name of Sin has followed the progress of navigation and commerce, beyond the true limits of the ancient country of Sinn; having been extended by the Portuguese, who preceded the other western nations in these remote longitudes, and became common among those which have followed. And that the country of Sinæ ought not to be transported to China, as it appears in all the maps which have preceded those of the author of the present work, is an article in ancient geography which may justify the foregoing discussion.

" The capital of the Sines is named Thinæ by Ptolemy; and, according to the Latin version, which is regarded as a text, Sinæ. Its position appears at a distance from the sea, at the mouth of a river named Cotiaris, having communication on the left with another river, whose name was Senus. This then can be no other than the great river of Camboja; which, eighty leagues above its mouth, divides into two branches. The principal, or that of the right, corresponding with the Cotiaris, and which is called the Japanese river, conducts to a city of which the Arabian geographers speak as being very celebrated for its commerce under the name of Loukin; and this position appears to answer to that of Thinæ in Ptolemy. But the city of the Sines, named Sinn, by the Arabian geographers, and in the Chinese memoirs Tchenn-tchenn, is a position more remote than Loukin, and is found distinguished by the name of Sinn-hoa, as having been the most flourishing city of Cochin-China, before its port was destroyed by alluvions of sand. The name of Thoan-hoa, which its district bears, seems, together with the other circumstances reported, to favour the application of the name of Thinæ to this city also. Thinæ is mentioned diversely in many authors of antiquity. But what cannot have a place here will be found in a memoir contained in vol. xxxii. of the Memoirs of the Academy, on the limits of the world known to the ancients beyond the Ganges*",

* D'Anville, Ancient Geography, p 563. London, 1791, 8vo.

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So far this industrious geographer, whose reasoning must, at the first glance, be pronounced to be vague and inconclusive. Nor has he been able to avoid that rock upon which many geographical theories have split, the attempt to trace ancient appellations by modern names: while the latter, though bearing even strong resemblance, may be very recent, and have no connexion whatever with the ancient etymon. The opinion of D'Anville has since been ably controverted by Gossellin*; who seems to demonstrate that the Golden Chersonese of Ptolemy is the southern part of the kingdom of Pegu, not Malacca as D'Anville supposed; and that the capital of the Sinæ is Tanaserim in the west of the country of Siam. In this Gossellin seems well founded; though, in a latter work, he certainly has too much restricted the knowledge of the ancients concerning Africa.

With regard to the other extreme position, that of Sera, while D'Anville ridicules the idea of transporting it to Pekin, he himself seems to have placed it too much to the east, when he infers, from very vague circumstances, that it is Can-Tcheou, a town of Tangut, now comprised in the Chinese province of Shen-si. There can on the contrary be little doubt, from the aspect of Ptolemy's maps, that his Serica is the country now called Little Bucharia. Nor is there any reason to believe that the ancients had ever passed the great desert of Cobi. His Scythia beyond the mountains of Imaus, or Belur Tag, is by himself restricted to a *narrow strip* on the east of these mountains; and seems now to correspond with the mountainous districts on the west and north of Little Bucharia.

From this discussion it will appear that not above one quarter of Asia was known to the ancients; and this knowledge was little increased till Marco Polo, whose travels became well known in Europe in the beginning of the fourteenth century, established a memorable epoch in geography, by passing to China, and disclosing the extent of that country, the islands of Japan, and a faint intelligence of other regions, illustrated and confirmed by recent accounts. The wide conquests of the famous Zingis, in the beginning of the thirteenth century, first opened the discovery of the distant parts of Asia, the Monguls, whose sovereign he was, being situated to the east of the Huns, who had before diffused terror over Europe. The first seat of the Monguls was in the mountains which give source to the river Onon; and at a short distance to the south-west was Kara-Kum, the first capital of the Mongul empire. The victories of Zingis extended from Cathay, or the northern part of China, to the river Indus; and his successors extended them over Russia, while their inroads reached Hungary and Germany. This widely diffused power of the Monguls naturally excited an attention and curiosity, never stimulated by a number of petty barbaric tribes; and at the same time facilitated the progress of the traveller, who, as in Africa at present, had been formerly impeded by the enmities of diminutive potentates. By force of arms the Monguls also first opened the obscure recesses of Siberia. Sheibani Khan, A. D. 1242, led a horde of 15,000 families into those northern regions; and his descendants reigned at Tobolskoy above three centuries, till the Russian con-

* Geographie des Grecs analysée. Paris, 1790. 4to.

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quest*. Two European travellers, Carpini and Rubruquis, were commissioned to inspect the power and resources of the new empire of the Monguls; the latter found at Kara-Kum, a Parisian goldsmith, employed in the service of the Khan; and by Carpini's relation it appears, that, from their brethren in Siberia, the Monguls had received some intelligence concerning the Samoieds.

Thus the discovery of Asia, which had been nearly dormant since the time of Ptolemy, began to revive in the thirteenth century. Yet after the publication of Marco Polo's travels, little was done for two centuries; and the authenticity of his accounts even began to be questioned†. One man indeed, of great mental powers, was impressed with their veracity, and in consequence accomplished a memorable enterprize. This was Christoval Colon, or as we call him, Christopher Columbus, who was led by the relation of Polo to conceive that, as Asia extended so far to the east, its shores might be reached by a short navigation from the western extremity of Europe. In this erroneous idea, when that great man discovered the islands now called the West Indies, he thought that he had arrived at the Zipango of Polo, or Japan; and thus the name of India was absurdly bestowed on those new regions.

After the discovery of America and the Cape of Good Hope, the maritime parts and islands of Asia were successively disclosed. Yet the recent voyages of the Russian navigators, of our immortal Cook, and of the unfortunate La Perouse, evince that much remained to be done; and concerning the interior of Siberia, scarcely any solid information arose, till Peter the Great, after the battle of Pultowa, sent many Swedish prisoners into that region; and Strahlenberg, one of the officers, published an account of Siberia. This knowledge was greatly improved and increased by the well known journies of Pallas, and others. Yet our knowledge of Asia is far from being perfect, especially in respect to Daouria, and other regions near the confines between the Russian and Chinese empires; not to mention central Asia in general, Tibbet or Tibet, and some more southern regions; nor had even the geography of Hindostan been treated with tolerable accuracy till Major Rennell published his excellent map and memoir. It is almost unnecessary to remind the reader of the recent discoveries to the south of Asia, in which the interior, and southern coast, of New Holland remain to be explored; with other defects of smaller consequence. But while many improvements are wanted in the geography of several European countries, it is no wonder there should be great deficiencies in that of the other quarters of the globe.

The importance of the subject will excuse the length of these remarks on the progressive geography of Asia, than which no part of the science can be more justly interesting; from the vast extent of that portion of

* Gibbon, xi. 424.

† From the map of the world by Andrea Bianco, the Venetian, 1440, it sufficiently appears that the discoveries of Polo had, even in his native country, been rather diminished than increased. See Formaleoni, Saggio sulla Nautica Antica dei Veneziani. Ven. 1783. 8vo. See also the description of Asia, by Pope Pius II, who does not appear even to have seen the travels of Polo.

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the globe; from the great variety of nations, civilized and barbarous, by whom it is peopled; and from its intimate connexion with the destinies of Europe, which it has frequently overawed, while the savage tribes of Africa and America can never become formidable to European arts or happiness.

RELIGIONS. The religions of Asia are various, and will be illustrated in the accounts of the several countries. The climate also admits of every variety from the equator to the arctic sea.

SEAS. Though Asia cannot vie with Europe in the advantages of inland seas, yet, in addition to a share of the Mediterranean, it possesses the Red Sea, the Arabian Sea, and Gulf of Persia; the bays of Bengal and Nankin; and other gulfs, which diversify the coasts much more than those of Africa or America, and have doubtless contributed greatly to the early civilization of this celebrated division of the earth.

RED SEA. The Red Sea, or the Arabian gulf of antiquity, constitutes the grand natural division between Asia and Africa; but its advantages have chiefly been felt by the latter, which is entirely destitute of other inland seas; Egypt and Abyssinia, two of the most civilized countries in that division, having derived great benefits from that celebrated gulf, which, from the straits of Babelmandeb to Suez, extends about twenty-one degrees, or 1,470 British miles; terminating, not in two equal branches, as delineated in old maps, but in an extensive western branch, while the eastern ascends little beyond the parallel of mont Sinai.

The Persian gulf is another noted inland sea, about half the length of the former, being the grand receptacle of those celebrated rivers, the Euphrates and the Tigris.

The other gulfs do not afford such strong features of what are properly termed inland seas; if the Euxine be excepted, which has already been briefly described in the general survey of Europe*. But the vast extent of Asia contains seas totally detached, and of a different description from any that occur in Europe, or other quarters of the globe.

CASPIAN. Such is the Caspian sea, extending about ten degrees or 700 miles in length, and from 100 to 200 in breadth. Strabo and Pliny idly supposed this sea to be a gulf, extending from the northern ocean; while Herodotus, many centuries before, had expressed more just ideas. Yet the Caspian seems at one period to have spread further to the north, where the deserts are still sandy and saline, and present the same shells that are found in the Caspian: but the chain of mountains which branches from the west of the Urals, to the north of Orenburg, and reaches to the Volga, must, in all ages, have restricted the northern bounds of the Caspian. To the east, this remarkable sea, in the opinion of most geographers, extended, at no very remote period, to the lake of Aral; the deserts on that side, presenting the same

* The form of the Euxine has been greatly improved, from recent observations, in Mr. Arrowsmith's maps; the breadth from the southern cape of Crimea to the opposite Asiatic promontories being found to be far less than formerly supposed.

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features as those to the north, though there be now an elevated level between the sea of Aral and the Caspian, occasioned, perhaps, by the quantity of sand rolled down by the Gihon, the Sirr, and other rivers, which now flow into the sea of Aral. The northern shores are low and swampy, often overgrown with reeds; but in many other parts the coasts are precipitous, with such deep water, that a line of 450 fathoms will not reach the bottom. This sea is the receptacle of many important rivers, as the Jemba, the Ural or Jaik, and the Volga from the north; the Kuma, Terek, Kur, and Kizel Ozen from the west: those of the south are of small moment; but from the east, the Caspian is supposed, still to receive the Tedjen; and the Gihon, or Oxus of antiquity, flowed into the Caspian, at least by one or two branches, till it bent northward and joined the sea of Aral. Besides herrings, salmon, and other fish, with porpoises and seals, this sea produces sterlet, and great numbers of excellent sturgeon; which last, in particular, ascend the Volga, and supply kaviar, and other articles of exportation. The birds most generally seen are storks, herons, bitterns, spoon-bills, with many others; particularly a kind of heron of a pure white, while the tips of the wings, the beak, and feet, are scarlet*. The best haven in the Caspian, is that of Baku: that of Derbent is rocky, and that of Ensili, or Sinsili, not commodious, though one of the chief ports of trade.

Aral. About 100 miles to the east of the Caspian, is the sea or lake of Aral, which is about 200 miles in length, and about seventy miles in breadth; receiving the river anciently called Iaxartes, more recently the Sirr or Sihon, and the river Gihon, the Oxus of antiquity; both streams of considerable course, flowing from the mountains of Belur Tag or Imaus. The sea of Aral being surrounded with sandy deserts, has been little explored; but it is salt like the Caspian, and there are many small saline lakes in the vicinity.

Baikal. Another remarkable detached sea is that of Baikal in Siberia, or Asiatic Russia, extending from about the fifty-first, to the fifty-fifth degree of north latitude, being about 350 British miles in length, but its greatest breadth is not above thirty-five. The water is fresh and transparent, yet of a green or sea tinge, commonly frozen in the latter end of December, and clear of ice in May. The Baikal is, at particular periods, subject to violent and unaccountable storms, whence, as terror is the parent of superstition, probably springs the Russian name of Svetoi Morè, or the Holy Seat. There are many seals and abundance of fish, particularly a kind of herring called omuli. Several islands appear, and that of Olchon has sulphureous springs. The chief river flowing into the Baikal is the Selinga, from the south; while from the north it emits the Angara, which joins the prodigious stream of the Yenisei.

Of the other Asiatic seas a minute account would be superfluous; but a few observations may be offered on the remarkable strait which divides Asia from America. This strait, which was discovered by Beering, and afterwards by Cook, is about thirteen leagues, or near forty miles in breadth. Beering, a Dane, was employed by Peter the

* Tooke's View of the Russian Empire, i. 239.
† Tooke's View, i. 141.

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Great in 1728, and actually passed this strait, probably in the usual fogs of the climate, without discovering land to the east; but our great navigator gave the name of the Danish adventurer to these straits, when he afterwards explored them with his usual accuracy*. On the Asiatic shore is the east cape, and on the American, that called Prince of Wales. The depth of the strait is from twelve to thirty fathoms. To the north of these straits the Asiatic shore tends rapidly to the westward; while the American proceeds nearly in a northern direction, till, at the distance of about four or five degrees, the continents are joined by solid and impenetrable bonds of ice.

In the Asiatic seas there are numerous shoals, or sand banks; but few of them have been described as conducive to human industry.

Rivers. The chief rivers of Asia are the Kian Ku and Hoan Ho, the Lena, the Yenisei, and the Ob, streams which rival in the length of their course any others on the globe. The Volga has been named among the rivers of Europe, to which the principal part of its course belongs. Next in consequence are the Amur, and the Maykaung of Laos, if the course be rightly delineated, the Sampoo or Burrampooter, and the Ganges; compared with all which, the Euphrates and Indus hide their diminished heads. A more particular account of these rivers will be given under the respective regions.

Mountains. The Asiatic mountains are said not to equal the European in height. The Uralian chain, forming a boundary of Europe, has been already described.

Altai. The Altaian chain may be classed among the most extensive on the globe, reaching from about the seventieth to the hundred and fortieth degree of longitude, east from London, or about 5000 miles, thus rivalling in length, the Andes of South America. But as chains of mountains, rarely receive uniform appellations, except from nations highly civilized, the Altaian chain, beyond the sources of the Yenisei, is called the mountains of Sayansk; and from the south of the sea of Baikal, the mountains of Yablonnoy: branches of which extend even to the country of the Techucks, or extreme boundaries of Asia. To the south of the Altaian ridge, extends the elevated desert of Cobi or Shamo, running in a parallel direction from east to west; and the high region of Tibet may be included in this central prominence of Asia. The chain of Alak may perhaps be regarded as a part of the Altaian, branching to the south, while the Taurus, now known by various names in different countries, was by the ancients, regarded as a range of great length, reaching from cape Kelidoni on the west of the gulf of Satalia, through Armenia, even to India; but this last chain has not impressed modern travellers with the same idea of its extent†. Other considerable ranges of mountains are Bogdo, Changai,

* Pennant, Arc. Zool. clxxxix.

† See Pliny, lib. v. c. 27, who says that the Imaus, the Emodus, and the mountains running through the centre of Persia, including the Niphates of Armenia, and even the Caucasus itself, are all parts of the Taurian chain, which thence spreads south-west along the Mediterranean. But this great southern chain is unknown to modern geography, and seems rather theoretical in reducing mountains of various directions to one series. The northern chain of Natolia was called Anti Taurus by the ancients.

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Belur, those of Tibet, the eastern and western Gauts of Hindoston; and the Caucasian chain between the Euxine and Caspian; all which will be afterwards more particularly described.

The Asiatic governments are almost universally despotic, and the very idea of a commonwealth seems to be unknown. The mildest systems are perhaps those found in Arabia.

In arranging the extensive states of Asia, according to their population and relative consequence, the first and chief rank beyond all comparison, must be assigned to the Chinese empire. But that prodigious domination being estranged from Europe, and having in no age exerted the smallest influence on its destinies, it seems preferable, in this instance, first to consider two powerful states, intimately blended with European policy. The Turkish empire in Asia constitutes a natural and easy transition from the description of Europe; and the Russian empire, though in population far inferior, yet in military and political force transcends that of China.

From the Russian empire in Asia, the transition is easy to that of China, a bordering state; after which shall be described Japan, and a new great power, the Birman empire. Hindostan and Persia being now divided into several distinct sovereignties, and Arabia containing many independent states, the scale of political importance becomes transitive and indistinct; and may justly yield in such cases to mere geographical arrangement. Hence the smaller states of India beyond the Ganges, or between Hindostan and China, will follow the Birman empire, to which, or to China, they may perhaps soon be subjected. A western progress leads to Hindostan, Persia, and Arabia: and a short account of the various interesting and important islands in the Indian, and in the Pacific oceans, will close this grand department of the work.

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TURKEY IN ASIA.

CHAPTER I.

HISTORICAL GEOGRAPHY.

EXTENT.—BOUNDARIES.—ORIGINAL POPULATION.—PROGRESSIVE GEOGRAPHY.—HISTORICAL EPOCHS AND ANTIQUITIES.

EXTENT. THIS region extends from the shores of the Egean sea, or Archipelago, to the confines of Persia; a space of about 1050 British miles. The boundaries towards Persia are rather ideal than natural, though somewhat marked by the mountains of Ararat and Elwend. In the north, the Turkish territories are now divided from the Russian by the river Cuban, and the chain of Caucasus; in the south, they extend to the junction of the Tigris and the Euphrates, which last river, for a considerable space, divides the Turkish possessions from those of the Arabs. From the river Cuban to the junction of the Tigris and Euphrates, may be about 1100 British miles.

This extensive territory, which in itself would constitute an empire, could it resume its pristine population, is divided into nine or ten provinces. Natolia, the most westerly, is followed by Karaman in the south; and Roum in the north-east. To the north of Armenia are Guria, or Guriel, Mingrelia, and the Abkhas of Caucasus, the ancient Circassians. Armenia is also styled Turcomania; to the south of which are Kurdistan, and Irak Arabi, a part of ancient Persia around the celebrated capital, Bagdad. The ancient Mesopotamia, between the Tigris and the Euphrates, now partly corresponds with the province of Algeziria; and the classical name of Syria or Soria, is still allotted to the celebrated countries along the eastern extremities of the Mediterranean. Some of these provinces are of comparatively recent acqui-

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sition; Bagdad having belonged to Persia till 1638; while on the contrary, Erivan, reconquered by the Persians in 1635, has remained free from the Turkish domination.

These provinces are subdivided into governments, arbitrarily administered by Pashas, a detail of which would afford little satisfaction, especially in the present declining state of the Turkish empire.

ORIGINAL POPULATION. The original population of these regions, consisted chiefly of Scythic nations, mingled with a few Assyrians from the south. But a complete illustration of this subject would be foreign to the nature of this work. At present the ruling language is the Turkish, next to which may be placed the modern Greek; but the Arabic, Syrian, Persian, and Armenian, with various dialects used by the tribes on the Black Sea, indicate the diversity of population.

PROGRESSIVE GEOGRAPHY. The progressive geography may be traced from the remotest antiquity to modern times; but Turkish barbarism has prevented the precision of recent knowledge from adding complete illustration to the geography of this part of Asia.

HISTORICAL EPOCHS. The chief epochs of Turkish history have already been mentioned, in describing their European possessions. Armenia and Georgia were subdued by the Turks in the eleventh century, and the whole of Asia Minor rapidly followed. The kingdom of Roum extended from the Euphrates to Constantinople, and from the Black sea to the confines of Syria. Successive warlike princes acquired additional territory from the Mamaluks of Egypt, and the Persians. Syria, formerly an appanage of Egypt, was conquered by Selim II, in 1516; Tauris and Diarbekr, which last had formerly belonged to Persia, were subdued by the same monarch; and in 1589, Abbas, the great sovereign of Persia, was obliged to yield three provinces to the Ottomans, though he extended his conquests to the east: and Bagdad, as already mentioned, with the surrounding province of Irak Arabi, became subject to the Turks in 1638. The present limits seem to have been fixed by the treaty between the Porte and Persia, 1736, since which period the Turks have been chiefly occupied in their own defence against the Russians: but their ascendancy over Persia had been such, that in 1727 they had acquired the territory from Erivan to Tauris, or Tebriz, and thence to Hamadan, a boundary which seems indeed more precisely marked by nature than the present.

ANTIQUITIES. The antiquities of Asiatic Turkey, once the chosen seat of the arts, are numerous and important, but have been so repeatedly described, as to have become trivial themes even to the general reader. The splendid publications by the society of Dilettanti, and the descriptions of Balbec and Palmyra, will convey a more just idea of those august remains, than the most elaborate description. The most splendid ruins are those of Palmyra, or Tadmor in the desert, about 150 miles to the south-east of Aleppo, at the northern extremity of the sandy wastes of Arabia. It is conceived, with some probability, that the sands must here have encroached upon a territory formerly fertile; but as there is no river, the situation remains equally surprising, for a capital of such opulence. It is now understood that

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this city owed its splendor to the Indian trade, conducted by caravans to the mercantile shores of Syria.

Balbec, the ancient Heliopolis, is about fifty miles to the north-west of Damascus; the most remarkable ruin being that of a temple, supposed to have been dedicated to the sun.

Recent investigation has disclosed another remarkable scene of antiquities in the site and celebrated plain of Troy, which have been exhibited by Mr. Morritt, and other travellers, with laudable zeal for classical lore. The Simois is now demonstrated to be a considerable stream, which runs into the Hellespont, nearly opposite to the New Castles constructed under the order of Tott. The Scamander, which formerly flowed into the western side of the Simois, having been diverted by the Romans into a different channel, this unnoted circumstance not a little baffled antiquarian research. The tombs of remote antiquity, having been constructed like the large barrows of our ancestors, in the lasting form of small hills, they withstood the assaults of time or avarice; and our travellers indicate, with some plausibility, that of Hector, behind the site of Troy; those of Achilles, and Patroclus on the shore; and a few others of the Homeric heroes*.

* See Morritt's Vindication of Homer, &c. 1798, 4to; Dallaway's Constantinople; and Dalzell's translation of Chevalier's Memoir. The map of Dallaway is inferior to that of Morritt; but adds a few modern names. A curious general map of the Troad, Hellespont, &c. may be found in the edition of the Voyage de Jeune Anacharsis, Paris, An. vii. 1799, drawn up by Barbié du Bocage, from a drawing of the plain of Troy taken in 1786, by the direction of the count Choiseul Gouffier, and of the coasts in 1785-6-7 by Truguet. This last excellent map, perfectly corresponds with that of Morritt, except that the latter supposes the Thymbrius to join the Simois from the north; and the former from the south. There is yet wanted an exact translation, with notes, of the long description by Strabo; and a comparative map arranged solely according to that description. Du Bocage observes, p 67, that in his opinion, new Ilium held the very site of ancient Troy, as Strabo says it stood upon a height, which corresponds with the hill of Bounar-Bachi. The rivulet of Kirké-Keuzler, he agrees is the Scamander of Homer; but supposes that the new settlers applied that name to the larger river, or Simois of Homer, which rises near the summit of Ida, and is now called Menderé-Sou.

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CHAPTER II.

POLITICAL GEOGRAPHY.

POPULATION, &c.

MANY of the topics assigned to this chapter have been already treated in the description of European Turkey. The Turkish empire in Asia is estimated at 470,400 square miles; and the population at 10,000,000; which, allowing eight for the European part, will render the total 18,000,000. Geographers have, contrary to the united voice of travellers, considered Egypt as a Turkish province: while in fact it was only occasionally tributary, and was subject to the military aristocracy of the Beys. Some of the maritime Mahometan powers have likewise assisted the Porte with ships in time of war; but cannot with any justice be regarded as subject to the Ottoman sceptre. The population of these African states is therefore foreign to the present consideration.

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CHAPTER III.

CIVIL GEOGRAPHY.

MANNERS AND CUSTOMS.—LANGUAGE.—LITERATURE.—EDUCATION.—UNIVERSITIES.—CITIES AND TOWNS.—EDIFICES.—ROADS.—INLAND NAVIGATION.—MANUFACTURES AND COMMERCE.

MANNERS AND CUSTOMS. The manners and customs of the Turks have been briefly described in the former volume; but the Asiatic character is deeply impressed upon the subject nations. So lax is the government, that hordes of banditti carry on their depredations almost within sight of the capital. Near Erzeron, Tournefort found encampments of Kurds*. In the summer, the Kurds pass from Mousoul to the sources of the Euphrates; and they are never punished either for robbery or murder. They are a pastoral people, conducting their herds from one country to another; and in the time of that traveller they extended as far west as Tokat, where other hordes, those of the Turcomans began to appear†. The Armenians, though they profess the Christian faith, retain many singular manners and customs; but they are described as a sensible and polite people, and the chief conductors of the Levant trade, for which office they are singularly qualified by frugality and enterprise. They embrace the Eutychian persuasion, which only admits one nature in Jesus Christ; a tenet which renders them irreconcileable enemies of the Greeks.

The Druses, a remarkable people of Syria, have attracted the observation of many writers. Though they affect the exterior appearance of Mahometans, yet they seem to have little or no religion; but even among them there are sects, who do not accord in the modes of disbelief. According to Volney they practise neither circumcision, prayer nor fasting; they observe neither festivals nor prohibitions. They drink wine, eat pork, and allow marriage between brothers and sisters, though not between fathers and children. Near Antioch there is said to be a sect, which professes some of the most dissolute tenets of paganism. The Maronites are Christians, who acknowledge the superiority of the Roman church, but have many minute peculiarities.

* Tournefort, ii. 199.

† See Volney, i. 369. who says, that the language of the Turcomans is the same with that of the Turks, but the mode of life nearly similar to that of the wandering Arabs. Their property consists in sheep, with some goats, camels, and buffalos. He seems to acquit the Turcomans of the charge of robbery.

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In the northern extremities of Asiatic Turkey, there are also many tribes who have adopted singular manners and customs. Six or seven languages are spoken in the country between the Euxine, and the Caspian*. The Abkhas are, by the Circassians, called Kush-Hasip, which implies a people beyond the mountains: they retain some traces of christianity. The Tsherkess, or Circassians, occupy an extensive territory, and might become formidable if they were united. Part of the Circassians are now subject to Russia; but little alterations can have taken place in their manners. The princes cannot possess lands: the nobles are chosen by the princes from the vassals, or third class. Public measures are proposed by the prince, and debated by the nobles and deputies of the people, on a spot destined for this purpose, near the royal residence. The agriculture of the Circassians barely suffices for their own consumption; but they export sheep and horses, and the slaves taken in their predatory excursions. The beauty of the Circassian women having been so much vaunted, the following extract from a recent and authentic author, may perhaps interest the reader†.

"Girls are brought up by the mother. They learn to embroider, to make their own dress, and that of their future husbands. The daughters of slaves receive the same education; and are sold according to their beauty from twenty to one hundred pounds, and sometimes much higher. These are principally Georgians. Soon after the birth of a girl, a wide leather belt is sewed round her waist, and continues till it bursts, when it is replaced by a second. By a repetition of this practice, their waists are rendered astonishingly small; but their shoulders become proportionably broad, a defect which is little attended to on account of the beauty of their breasts. On the wedding night the belt is cut with a dagger by the husband, a custom sometimes productive of very fatal accidents. The bridegroom pays for his bride a marriage present, or Kalym, consisting of arms, or a coat of mail; but he must not see her, or cohabit with her, without the greatest mystery. This reserve continues during life. A Circassian will sometimes permit a stranger to see his wife, but he must not accompany him. The father makes the bride a present on the wedding day, but reserves the greater part of what he intends to give her, till the birth of her first child. On this occasion she pays him a visit, receives from him the remainder of her portion, and is clothed by him in the dress of a matron, the principal distinction of which consists in a veil. Until this time the dress of the women is much like that of the men, excepting that the cloak is longer, and frequently white, a colour never worn by men. The captoo is generally red or rose-coloured.

"Before marriage, the youth of both sexes see each other freely, at the little rejoicings which take place on festivals. Before the ball, the young men shew their activity and address, in a variety of military exercises; and the most alert have the privilege of chusing the most beautiful partners. Their musical instruments are a long flute, with only three stops, a species of mandoline, and a tambarine. Their dances are in the Asiatic style, with very little gaiety or expression. The steps seem very difficult, but not graceful.

* Ellis's Memoir, p. 14. † Id. p. 24, &c.

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"The Circassian women participate in the general character of the nation; they take pride in the courage of their husbands, and reproach them severely when defeated. They polish and take care of the armour of the men. Widows tear their hair, and disfigure themselves with scars, in testimony of their grief. The men had formerly the same custom; but are now grown more tranquil under the loss of their wives and relations. The habitation of a Circassian is composed of two huts, because the wife and husband are not supposed to live together. One of these huts is allotted to the husband, and to the reception of strangers; the other to the wife and family: the court which separates them is surrounded with palisades, or stakes. At meals the whole family is assembled; so that here, as among the Tatars, each village is reckoned at a certain number of kettles. Their food is extremely simple, consisting of only a little meat, some paste made of millet, and a kind of beer composed of the same grain, fermented."

The Mamaluks of Egypt were, as is well known, slaves regularly imported from Circassia and Georgia. In Imeritia, Mingrelia, and Guriel, as well as in Georgia, which forms a Persian province, the barons have power of life and death over their vassals; and form a powerful aristocracy, formidable to the prince, who resides at Cutais*. The Dadian, or chief of Mingrelia and Guriel, though possessed of a more extensive country, is tributary to the former sovereign. The religion of all is the Greek; and these provinces can scarcely be regarded as subject to Turkey.

In general the most striking feature of manners and customs, in the Turkish empire, is that half the people may be considered as somewhat civilized, while the other half are pastoral wanderers, ranging over extensive wastes. This laxity of government renders travelling in Asia Minor very unsafe; and has proved a great impediment to any exact geographical knowledge of these regions. Under a prudent government, the wandering hordes of Turcomans and Kurds, would be expelled; and regular troops and garrisons maintained on the frontiers; whence industry and the arts might again visit this classical territory.

Cities and Towns. The capital of the Turkish empire has been already described.

Aleppo. Next in dignity and importance is the city of Haleb, or Aleppo, supposed to contain about 250,000 inhabitants. This city is constructed with some elegance, and the tall cypress trees, contrasted with the white minarets of numerous mosques, give it a most picturesque appearance†. The buildings and population seem to be on the increase; but the adjacent villages are deserted. The chief languages are the Syrian and Arabic. The manufactures of silk and cotton are in a flourishing condition; and large caravans frequently arrive from Bagdad and Bassora, charged with the products of Persia and India; Aleppo being the modern Palmyra. Consuls from various European powers reside here, to attend the interests of the respective nations.

* Ellis's Memoir, p. 57. † Russel's Aleppo. Browne, 384, &c.

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DAMASCUS. Damascus is supposed to contain about 180,000 souls. It was formerly celebrated for the manufacture of sabres, which seem to have been constructed, by a method now lost, of alternate thin layers of iron and steel, so as to bend even to the hilt without breaking, while the edge would divide the firmest mail. When Timur subdued Syria, about the beginning of the fifteenth century, he ordered all the artists in steel to migrate into Persia. The manufactures now consist of silk and cotton, chiefly mingled together; and excellent soap is made of oil of olives, with kali and chalk. From the Mediterranean are imported metals and broad cloths: and the caravans of Bagdad bring Persian and Indian articles. This city also increases, by the gradual depopulation of the villages and country, which last always present the chief symptoms of national prosperity, or decline. The Pashilik of Damascus is esteemed the first in Asia; and the office of Pasha has, in the decline of the Turkish empire, become in some measure hereditary, with absolute power of life and death, and without any appeal.

SMYRNA. Smyrna may be regarded as the third city in Asiatic Turkey, containing about 120,000 souls. This flourishing seat of European commerce, and chief mart of the Levant trade, is said to have been founded by Alexander the Great, eminently distinguished from all other conquerors by the foundation, and not the destruction, of cities. In the wars between the Turks and the Greeks, Smyrna sunk into great decline; and was taken with vast slaughter by Timur, in 1402. The excellence of the haven, renders Smyrna the centre of all the traffic of Asia Minor; but the frequent visits of the pestilence greatly impede its prosperity*.

PRUSA. Prusa is a beautiful city, in a romantic situation at the northern bottom of mount Olympus. By Tournefort's computation of families, the inhabitants may be about 60,000. It is enlivened by numerous springs, which descend from the mountains, and by the proximity of the hot baths. Prusa was formerly the chosen residence of the sultans, and contains many of their tombs. Magnisi, or Magnesia, is also a city of some repute in this quarter of the empire; and Kircagatch has risen to considerable population, from the cultivation of cotton, being about forty miles to the north-east of Magnisi, on the route to Prusa†.

ANGORA. Angora may contain 80,000 inhabitants; and is a striking, and agreeable city, in a lofty situation. The trade is chiefly

* Chandler, 65.

† Hunter's Travels, 1796, 8vo. p. 159. See also the map in Peyssonnel's journey from Smyrna to Sardis, and Thyatira, at the end of his Observations Historiques et Geographiques, &c. Paris, 1765, 4to. This journey is full of inscriptions and antiquities, like most of those to the Levant, and of course contains very little solid information. Voyages to the Levant, as they are called, are indeed of all others the most common, and the most vague and uninstructive. A few useless inscriptions, and a thousand quotations from the classics, or descriptions of Egypt and Syria, repeating what has been repeated a hundred times before, constitute what is called a voyage to the Levant. If an able traveller were to investigate the geography, natural history, and other topics of real importance in Asia Minor only, he would supply many deficiencies in modern knowledge.

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in yarn, of which our shalloons are made; and in their own manufacture of Angora stuffs, made chiefly of the fine hair of a particular breed of goats, which, like that of the cats, occurs in no other country. Yet there seems no peculiarity in the air, situation, or soil, which is a fine red marl.

TOKAT. Tokat is also a flourishing place. The inhabitants are computed at 60,000. The situation is singular, amidst rugged and perpendicular rocks of marble; and the streets are paved, which is a rare circumstance in the Levant. Silk and leather are manufactures of Tokat; but the chief is that of copper utensils, which are sent to Constantinople, and even to Egypt. The copper is from the mines of Gumiscana, at the distance of three days journey from Trebisond; and from those of Castan Boul, yet richer, and situated ten days journey from Tokat, on the west towards Angora*.

BASRA. Basra, or Bassora, on the estuary of the Euphrates, and Tigris, must be regarded as rather belonging to an independent Arabian prince, who pays dubious homage to the Porte, but as it has an intimate connexion with Asiatic Turkey, it may be here briefly mentioned as a city of 50,000 inhabitants, but of great commercial consequence, being frequented by numerous vessels from Europe and Asia, and the seat of an English consul. Here the various products of Europe and India are exchanged for those of Persia; and opulent caravans proceed to the chief cities of Asiatic Turkey, to all which it is the most central port of the more oriental trade.

BAGDAD. The great and romantic Bagdad, the seat of the Caliphs, and the scene of many eastern fictions, has now dwindled into a town of about 20,000 inhabitants. Not far to the south are some ruins of the celebrated Babylon, which have been ably illustrated in a recent work of Major Rennell†.

Many an important city of antiquity has sunk into a village, and even the village often into a mass of rubbish, under the destructive domination of the Turks, perhaps the only people whose sole occupation has been to destroy. The maps are crowded with many names, now only known by miserable hamlets; and an enumeration which would seem short may yet be complete. The ancient and celebrated city of Jerusalem is reduced to a mean town, chiefly existing by the piety of pilgrims. Towards the frontiers of Persia, the ravages of frequent war have spread additional destruction; yet Erzeron, the capital of Armenia, retains about 25,000 inhabitants. Kars, the extreme town upon the frontiers of Persia, is tolerably fortified; but is an inconsiderable place‡.

MANUFACTURES. The chief manufactures of Asiatic Turkey have been already incidentally mentioned in the preceding account of the cities; to which may be added the excellent carpets so frequent in England. These, with rhubarb, and several other drugs, may be regarded as the chief articles of commerce.

The Levant, or Turkey trade, was formerly of great consequence to Great Britain: but since the middle of last century has been more

* Tournefort, ii. 324.
† Geography of Herodotus.
‡ Tournefort, ii. 217.

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advantageous to France. Sir James Porter, formerly ambassador at Constantinople, has published several important observations on this subject*. He remarks that many of the stems of our nobility sprung from this great root of opulence: for in former times the Turkey merchants were the most rich and respectable body of men in the city. The capitulations of this commerce, so called because they were mere concessions granted by the Porte, date from the reign of Elizabeth. Though the charter were granted to a company, there was no common stock; but each individual traded in his own way, and upon his own fund. There was a code of regulations: the ships were sent annually, and no bullion was allowed to be remitted to Turkey. The decline of this trade appears, from the account of this author, to have arisen from several injudicious bills brought into parliament, which from their severity, induced the merchants to export cloth of an inferior quality. Yet as he confesses that the trade had declined, before the statutes had passed, it seems reasonable to infer, that the avarice of some traders was the real cause of the inferiority of our articles to those of the French, who artfully availed themselves of the opportunity, and by strict regulations maintained their superiority. In the period from 1729, to 1738, the English cloth sent to Constantinople amounted annually to 574 bales; while from 1739, to 1748, it had fallen to 236 bales. For the nature and causes of the decline of our Turkey trade, and the asendency of that of the French, the reader, who wishes for minute information, must be referred to the same judicious traveller.

* Observations on the Turks, 1771, 8vo. p. 361.

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CHAPTER IV.

NATURAL GEOGRAPHY.

CLIMATE AND SEASONS.—FACE OF THE COUNTRY.—SOIL AND AGRICULTURE.—RIVERS.—LAKES.—MOUNTAINS.—FORESTS.—BOTANY.—ZOOLOGY.—MINERALOGY.—MINERAL WATERS.—NATURAL CURIOSITIES.

CLIMATE AND SEASONS. THE climate of Asia Minor has always been considered as excellent. There is a peculiar softness and serenity in the air, not perceivable on the European side of the Archipelago. The heat of the summer is considerably tempered by the numerous chains of high mountains, some of which are said to be covered with perpetual snow.

FACE OF THE COUNTRY. The general appearance of Asiatic Turkey may be regarded as mountainous; but interminglied with large and beautiful plains, which, instead of being covered with rich crops of grain, are pastured by the numerous flocks and herds of the Turcomans. The soil, as may be expected, is extremely various; but that of Asia Minor is chiefly a deep clay; and wheat, barley, and durra, form the chief, if not the only products of agriculture*: But excellent grapes and olives abound; and the southern provinces are fertile in dates.

AGRICULTURE. In Syria the agriculture is in the most deplorable condition; and the instruments and management are alike execrable. The peasants are in the most miserable situation; and though not sold with the soil, like those of Poland, are, if possible, yet more oppressed; barley bread, onions, and water constituting their constant fare†.

RIVERS. The principal river of Asiatic Turkey is, beyond all comparison, the Euphrates, which rises from the mountains of Armenia, a few miles to the north-east of Erzeron‡; and chiefly pursues a south-west direction to Semisat, where it would fall into the Mediterranean, if not prevented by a high range of mountains. In this part of its course, the Euphrates is joined by the Morad from the east, a stream almost doubling in length that of Euphrates; so that the latter river might more justly be said to spring from mount Ararat, about 160 British miles to the east of the imputed source. At Semisat, the ancient Samosata, this noble river assumes a southerly direction; then runs an extensive course to the south-east, and after receiving the Tigris, falls by two or three mouths into the gulf of Persia. The comparitive course of the Euphrates may be estimated at about 1400 British miles.

* Browne, 418. † Volney, ii. 413. ‡ Tournefort, ii. 198.

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TIGRIS. Next in importance is the Tigris, which rises to the north of Medan, about 150 miles south from the sources of the Euphrates, and pursues nearly a regular direction south-east, till it join the Euphrates below Korna, about sixty miles to the north of Bassora; after a comparative course of about 800 miles. The Euphrates and the Tigris, are both navigable for a considerable distance from the sea.

KIZIL IRMAK. The third river in Asiatic Turkey is that called by the Turks Kizil Irmak, the celebrated Halys of antiquity; rising in mount Taurus not far from Erekli, but by other accounts more to the east, and, pursuing a winding course to the north, nearly across the whole of Asia Minor, till it join the Euxine sea on the west of the gulf of Sansoun.

SACARIA. The river Sacaria, the ancient Sangarius, or Sangaris, rises about fifty miles to the south of Angora, and running to the north-west, joins the Euxine, about seventy miles to the east of Constantinople.

MÆANDER. In the next rank may be placed the classical river of Mæander, rising to the north of the ancient city of Apamia, and running, in a winding stream, about 250 British miles. Dr. Chandler has observed that Wheler, otherwise a most accurate and intelligent traveller, has mistaken a tributary stream for the real Mæander*; which is called by the Turks Boyuc Minder, or the Great Mæander, to distinguish it from this little stream, which resembles it in mazes. The Minder, not far from its mouth, is about 100 feet broad; with a swift, muddy, and extremely deep current, having received a considerable accession of waters from the lake of Myus.

SARABAT. The Sarabat, or ancient Hermus, renowned for its golden sands, joins the Archipelago about ninety British miles to the north of the Minder, after a coarse of similar length.

The other rivers of Asia Minor are far more inconsiderable, though many of them be celebrated in classical history and poetry.

ORONTES. The chief river of Syria is the Orontes, now called Oron or Asi, rising about eighty miles to the north of Damascus, and running nearly due north, till it suddenly turn south-east near Antioch, after which it soon joins the Mediterranean.

LAKES. Asiatic Turkey also contains numerous lakes.

VAN. That of Van in the north of Kurdistan, is the most remarkable, being about eighty British miles in length from north-east to south-west, and about forty in breadth: it is said to abound with fish. This great lake, with that of Urmiah in Persia, about 100 miles to the south-east, appears to have been little noted in ancient geography; and D'Anville does not seem to have considered the difficulty, though the lake of Van may be the Thospitis of antiquity; but his maps and disquisitions are open to many improvements from recent accounts†.

* This little stream, whose windings rival those of the river, flows due south, and joins the Mæander near its mouth, after a course of about forty British miles.

† From Ptolemy it may be concluded, that the lake of Urmiah is the Arsissa of antiquity; but when he derives the Tigris from the lake Thospitis, he probably means the small lake of Gurgick, near the real source of the Tigris.

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DEAD SEA. In Syria what is called the Dead Sea, may be regarded as a lake of about fifty miles in length, and twelve or thirteen in breadth. The lake of Rackama, to the south of Hilla and the ancient Babylon, is about thirty miles in length, and flows into the Euphrates.

Towards the centre of Asia Minor there is a remarkable saline lake, about seventy miles in length, and a mile or two in breadth, being the Tatta or Palus Salsa of D'Anville's ancient geography.

ULUBAD. Numerous other small lakes appear in Natolia, among which may be particularly mentioned that of Ulubad, anciently styled the lake of Apollonia, which, according to Tournefort, is about twenty-five miles in circumference, and in some places seven or eight miles wide, sprinkled with several isles and some peninsulas, being a grand receptacle of the waters from mount Olympus*. The largest isle is about three miles in circuit, and is called Abouillona, probably from the ancient name of the city which stood on it. About fifty miles to the north-east, was the lake called Ascanius by the ancients, now that of Isnik.

MOUNTAINS. Many of the mountains of Asiatic Turkey deserve particular attention, from their ancient celebrity.

TAURUS. The first rank is due to the Taurian chain of antiquity, which was considered as extending from the neighbourhood of the Archipelago to the sources of the Ganges, and the extremities of Asia, so far as discovered by the ancients. But this notion little accords with the descriptions of modern travellers, or the researches of recent geography; and, we might perhaps with equal justice infer, that the Carpathian mountains, the Alps, and the Pyrenees, constitute one chain. Science is equally impeded by joining what ought to be divided, as by dividing what ought to be joined. The Caucasian mountains have been well delineated by the Russian travellers, as forming a range from the mouth of the river Cuban, in the north-west, to where the river Kur enters the Caspian, in the south-east. The remaining intelligence is dubious and defective; but it would seem that, in resemblance of the Pyrenees, a chain extends from Caucasus south-west, to near the bay of Scanderoon. This ridge seems the Anti Taurus of antiquity: but various parts of it were known by different names, as marked in D'Anville's map of Asia Minor. At the other extremity of the Caucasus, other chains branch out into Persia, which they pervade from north-west to south-east, but they may all be justly considered as terminating in the deserts of the south-eastern part of Persia; or as having so imperfect a connexion with the mountains of Hindoo Koh, which supply the western sources of the Indus, that it would be mere theory to regard them as a continued chain.

Far less can they be regarded as an extension of mount Taurus, which, on the contrary, terminates at the Euphrates and deserts of Algezira. Of this the ancients were aware; and in their fondness for the Taurus represented it as winding like an immense snake, by the Anti Taurus to the Caucasus, thus including the latter in the Taurian chain. Such ideas would only introduce confusion into geography: and modern

* n. 363.

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precision will be contented to observe that the chain of Taurus, now called Kurun, perhaps from the old Greek name Ceraunus, extends for about 600 miles east and west, from the Euphrates to near the shores of the Archipelago. A recent traveller found the ascent and descent, between Aintáb and Bostan, to occupy three days; and the heights abound with cedars, savines, and junipers. It is probable that these, and the other mountains of Asiatic Turkey, are calcareous; while the Caucasus alone aspires to the rank of a granitic or primitive chain.

Ararat. Towards the east of Armenia is Ararat, of which we have a description by Tournefort*; and from his account it seems chiefly to consist of free-stone or calcareous sand-stone. It is a detached mountain, with two summits; the highest being covered with eternal snow. In one of the flanks is an abyss, or precipice, of prodigious depth, the sides being perpendicular, and of a rough black appearance, as if tinged with smoke. This mountain belongs to Persia, but is here mentioned on account of connexion.

Beyond Ararat are branches of the Caucasian chain; to which, as is probable, belong the mountains of Elwend, which seem to be the Niphates of antiquity.

Libanus. In Syria the most celebrated mountain is that of Lebanon, or Libanus, running in the southerly and northerly direction of the Mediterranean shore, and generally at the distance of about thirty or forty miles. The Anti Libanus is a short detached chain, running nearly parallel on the east. These mountains are of considerable height, the summits being often covered with snow; and they seem to be calcareous, the granite not appearing till the neighbourhood of mount Sinai and the Arabian gulf.

Olympus. The eastern side of the Archipelago presents many mountains of great height and classical fame, chiefly in ranges extending from north to south. Of these, Olympus (now Keshik Dag) is one of the most celebrated, and is described by Tournefort as a vast range covered with perpetual snow. He says, that a day's journey would be required to visit the summit of the mountain; and adds, that it is one of the highest in Asia. Many small streams spring from Olympus, and the large lake of Ulubad is another receptacle of its waters.

Ida. About 140 miles to the west of Olympus rises mount Ida, of great though not equal height. The summit of Ida was by the ancients called Garganus; from which extend western prominences reaching to the Hellespont, and amidst them stood the celebrated city of Troy: Garganus, or the summit of Ida, being about thirty miles from the shore; and giving source to the Granicus, the Simois, and other noted streams, most of which run to the north.

Other remarkable mountains on this classical shore were those of Rhea, at an equal distance between Ida and Olympus. Mount Pedasus seems merely the southern extremity of Rhea. Farther to the south the mountains may perhaps be considered as branching from the Taurus, such as the range which passes from the head of the Mæander, and forms the promontory opposite to Scio, known in different districts

* ii. 267, &c.

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by the ancient names of Messogis, Tmolus, Sipylus, Corycus, and Mimas; while another branch passes along the shore to the mouth of the Mæander, presenting the heights of Corax, Gallesus, and Mycale, the last opposite to Samos.

To the south of the Minder, or Mæander, the Taurus detaches a chain, called Cadmus and Grius, bending towards the isle of Cos and the Cyclades.

Forests. These numerous mountains in Asiatic Turkey are often clothed with immense forests of pines, oaks, beeches, elms, and other trees. The southern shores of the Black Sea also present many gloomy forests of great extent. This abundance of timber supplies the inhabitants with fuel; nor has pit coal been explored in any part of Asiatic Turkey. Sometimes conflagrations arise, from the heedless waste of the caravans, who, instead of cutting off a few branches, will set fire to a standing tree.

Botany. The extensive provinces of Natolia, Syria, and Mesopotamia, since their reduction under the Turkish yoke, have been but little accessible to European curiosity. The natural productions of Syria, however, have been investigated, though imperfectly, by several naturalists of eminence, while the mountains and rich vales of Natolia towards the great Caucasian chain, are almost wholly unknown. These countries having been inhabited and civilized from the remotest antiquity, possessing for the most part a dry rocky soil, with fewer rivers than any tract in Europe of equal extent, contain none of those low swampy levels that form so characteristic a feature in almost all the American countries, that compose the greater part of Holland, and occupy no small proportion of Hungary and the dominions north of the Baltic. Those vegetables therefore that inhabit swamps, lakes and bogs, will be very sparingly found in the flora of Asiatic Turkey; nor will the indigenous alpine plants be more numerous; not indeed on account of the absence of high mountains, but from their having been hitherto almost entirely unexamined. Of the scanty catalogue of plants that have been found wild in the Asiatic part of the Ottoman territory, the following are the most worthy of notice:

Among the trees may be distinguished, olea europæa, the *olive-tree*, abounding throughout the whole Archipelago and the shores of the Levant; salix Babylonica, the *weeping willow*, graceful with its slender pendant branches, which has adorned the banks of the Euphrates from time immemorial; elæagnus angustifolius, *wild olive*, bearing a small sweet esculent fruit; betula alnus, the *alder;* morus albus, the *white mulberry;* cercis siliquastrum, remarkable for its long seedpods; zygophyllum fabago, *berry bearing tree;* melia azedarach, the *bead tree;* styrax officinalis, *storax tree*, from which exudes the fragrant gum resin of the same name; punica granatum, *pomegranate;* mespilus pyracantha; amygdalus communis, *almond tree*, and amygdalus persica, *peach tree;* cerasus sativus, *cherry*, a native of Pontus in Natolia, whence it was brought to Rome by Lucullus; citrus limon and aurantium, the *lemon* and *orange;* cytisus laburnum, and myrtus communis, *myrtle*, growing plentifully by the side of running streams; musa paradisaica, *plantain tree;* rhamnus paliurus; vitis vinifera, *vine*, in a perfectly wild state, climbing up the highest trees, and forming verdant

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grottos among its ample festoons: pistachia lentiscus, terebinthus and vera, the *mastich*, *chio turpentine*, and *pistachia nut tree*; ceratonia siliqua, *carob*; juniperus drupacea and oxycedrus, two of the largest species of this genus nearly equalling the cyprus in height, and found upon mount Cassius, and other rocky hills in Syria; cupressus sempervirens, *cyprus*; thuia orientalis, pinus cedrus, the *cedar*, a few large trees of which still remain on mount Lebanon, the venerable relics of its sacred forests. Hibiscus Syriacus, distinguished by the uncommon splendor of its blossoms, and on this account much cultivated about Constantinople, and other parts of the Turkish empire, where it does not grow spontaneously; ficus carica, *fig tree*; ficus sycomorus, *sycamore fig*, abounding in Palestine, and other parts of Syria; phenix dactylifera, *date tree*; quercus cerris, *prickly cupped oak*, from which are procured the finest Aleppo galls; laurus indica; plantanus orientalis, *oriental plane tree*, highly esteemed for its shady tent-like canopy of foliage. Mimosa arborea; carpinus ostrya, *hop hornbeam*; and menispermum cocculus, the berries of which, commonly called cocculus indicus, are much used by the natives for taking fish, on account of their narcotic qualities.

Of the lower trees and flowering shrubs, the principal are syringa vulgaris, *lilac*, abounding on the banks of the Euphrates; jasminum fruticosa and officinalis, *yellow* and *common jasmine*, found plentifully in the thickets and woods of Syria; the long hollow stems of the latter of these are in great request among the inhabitants, as stems to their tobacco pipes; ruta fruticulosa and linifolia, two species of *rue*, the former of which is rather uncommon, and has been chiefly found about Damascus; arbutus unedo, *arbute*; prunus prostrata, a trailing shrub, the smallest of the *plum* kind, covering the rocks near the summit of mount Lebanon; Spartium junceum and spinosum, *Spanish* and *thorny broom*, occupying many of the sandy tracts that are of such frequent occurrence in Syria; nerium oleander, a common ornament of every rivulet; tamarix gallica, *tamarisk*; rhus cotinus; lycium europæum, *boxthorn*; osyris alba, *poet's cassia*; erica scoparia, with many other kinds of *heath*; laurus nobilis, *bay tree*; caparis spinosa, *caper bush*; several species of cistus, especially the *sage-leaved* and *gum cistus*; and euphorbia mauritanica, *mauritanian spurge*, with the acrid juice of which the scammony is not unfrequently adulterated.

Several dying drugs and articles of the materia medica are imported from the Levant, among which may be particularized rubia tinctorum, *madder*; a variety of this, called alizari, is largely cultivated around Smyrna, which yields a much finer red dye than the European kind, and to this the superiority of the Greek and Turkish reds is principally to be ascribed; smilax aspera; mirabilis jalapa, *jalap*; convolvulus scammonia, *scammony*; cordia myxa, *sebesten*; croton tinctorium: ricinus communis, the seed of which yields by expression the *castor oil*; momordica elaterium, *squirting cucumber*; cucumis colocynthis, *coloquintida*; papaver somniferum, *opium poppy*; sesamum orientale; and costus Arabicus, *spikenard*.

A few esculent plants not commonly made use of elsewhere are the produce of Natolia and Syria, such as solanum melongena, *mad apple*; cyperus esculentus, the large aromatic root of which is much esteemed;

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corchorus olitorius, *Jews' mallow;* arum colocasia, remarkable for its sweet farinaceous root, while those of its kindred species are intolerably acrid.

The following vegetables are remarkable either for their beauty or singularity: exoacantha heterophylla, an umbelliferous plant distinguished by its uncommonly thorny involucrum, found in the vicinity of Nazareth; dianthus Libanotis, Lebanon pink; anthyllis tragacanthoides, a rare plant found on Lebanon, and eminently beautiful with its long clusters of purple papilonaceous flowers; amaryllis montana, also a native of Lebanon; asphodelus ramosus, branched asphodel; lilium album and bulbiferum, *white* and *orange lily;* narcissus tazetta; ornithogalum umbellatum, *star of Bethlehem;* hyacinthus orientalis, *oriental hyacinth;* xeranthemum frigidum, a beautiful plant growing close to the snow on mount Lebanon; hyosciamus aureus) *golden hen bane;* physalis alkekengi, *winter cherry;* atropa mandragora; calla orientalis; arum intortum; origanum heracleoticum and creticum, *cretan origany;* salvia acetabulosa; thymus mastychina; and anastatica hierochuntica, *rose of Jericho.*

Zoology. The best horses in Asiatic Turkey are of Arabian extract, and are sparingly fed with a little barley and minced straw, to accustom them to abstinence and fatigue; but mules and asses are in more general use. Concerning the breed of cattle little is mentioned by travellers, but it seems inferior to those of Europe; and beef is scarce and bad. The mutton is superior; and the kid is a favourite repast*.

In Asiatic Turkey appears that king of ferocious animals called the lion, which is unknown to any region of Europe, and even to Asiatic Russia. Yet he rarely roams to the west of the Euphrates: but Tournefort observed many tigers on mount Ararat. He must mean the small tiger, or perhaps the leopard or the mountain cat; for the royal or large tiger seems to be restricted to the wastes of Hindostan. The hyæna, and the wild boar, are known animals of Asia Minor; and the jackals range in troops, which raise dreadful cries in the night, but the fable of their accompanying the lion is justly exploded. The cities and villages swarm with dogs, who are allowed to wander, as a constant defence against strangers or enemies.

The ibex, or rock goat, appears on the summits of Caucasus. The singular goats and cats of Angora have been already mentioned. The gazel, a kind of antelope, is also an inhabitant of Asia Minor; with numerous deer and hares. The partridges are generally of the red legged kind, about a third larger than the common European. Of fish there are numerous names, and many of them are excellent. The difficulties of travelling have considerably abridged our knowledge of the zoology of these various regions, Hasselquist, the disciple of Linnæus, having passed from Smyrna to Alexandria, chiefly occupied himself in the natural history of Palestine and Egypt.

Mineralogy. The mineralogy of those extensive and mountainous provinces, remains in a deplorable state of imperfection. Ancient

* Hasselquist, p. 192, says that the sheep of Anti Libanus have sometimes a crust on their teeth, with the perfect appearance of yellow pyrites. It is imputed to the grass or lucern.

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Lydia was famous for the production of gold; but in modern times no mines seem to be indicated, except those of copper which supply Tokat. The indolence of the Turks, or indeed their industry in destruction, is alike inimical to metallurgy and agriculture. Hasselquist observed lead and copper ore, with rock crystals, in the island of Cyprus. But his account of oriental minerals only contains whet-stone and natron, both Egyptian; and he informs us that Moses must have inscribed the laws on granite, which constitutes mount Oreb and mount Sinai*. The mountains of Judæa, he says, are of a very hard lime-stone of a yellowish white: and towards the east of a loose grey lime-stone. If such be the profound observations of a naturalist, what is to be expected from other travellers?

Mineral Waters. The most noted mineral waters are those of Prusa, at the bottom of mount Olympus. The baths are splendid, and paved with marble, with two reservoirs or rather cisterns for bathing, one for the men, another for the women. The water smokes continually, and is so hot as to scald the hand; but in the baths it is mingled with cold water from the numerous streams of Olympus. There are many other hot springs in different quarters of Natolia.

Natural Curiosities. The natural curiosities, and singular features of so mountainous a country, must be numerous; but as such seldom occur in the beaten tracks, and there is no safety in visiting distant recesses, the chosen haunts of banditti, it is no wonder that this topic is left barren by travellers. The beautiful mazes of the Minder have been celebrated from early antiquity; and it is probable that the large salt lake, in the centre of Asia Minor, might afford a curious object of investigation. Dr. Chandler† describes the singular cliff near Pambouk or Hierapolis, produced by the hot petrifying waters, and resembling an immense frozen cascade, as if the water had been fixed and suddenly converted to stone. In the same vicinity is a cave remarkable for pernicious effluvia.

* P. 292. † P. 230.

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ISLANDS BELONGING

TO

ASIATIC TURKEY.

THE chief islands in the Archipelago, considered as belonging to Asia, are Mytilene, Scio, Samos, Cos, and Rhodes.

MYTILENE. Mytilene, the ancient Lesbos, is the most northerly and largest of these isles, being about forty British miles in length by twenty-four at its greatest breadth. The mountainous appearance of this isle is agreeably diversified with bays, and inlets of the sea, and plantations of olives, vines, and myrtle*. There are hot baths issuing from cliffs resembling those of St. Vincent near Bristol, and which indicate the isle to be chiefly calcareous. The climate is exquisite; and it was anciently noted for wines, and the beauty of the women.

SCIO. Scio, the ancient Chios, is about thirty-six British miles in length, but only about thirteen in medial breadth. The Chian wine is celebrated by Horace, and retains its ancient fame. The town of Scio, on the east side of the isle, is handsome and convenient. The Greeks here enjoy considerable freedom and ease; and display such industry, that the country resembles a garden. This particular favour arises from the cultivation of the mastic trees, or rather shrubs, for they are small evergreens which supply the gum, so acceptable to the ladies of the sultan's haram, or, as we term it, the seraglio. The beauty of the women is confined to one form of features, as in the Grecian statues; and even the clearness of their complexion cannot atone for the preposterous form of their dress, which is here, if possible, more ridiculous than in the other Egean isles. Pococke's figure of Homer, which he pretends to have found here, is imaginary; and the original seems to be an image of Cybele. This isle is also very mountainous. The earth of Scio was celebrated by the ancients, but was only a common bole like that of Lemnos. Tournefort observed here some tame partridges, kept like poultry; and it is proba-

* Dallaway's Constantinople, p. 313.

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ble the custom is retained, for among the Turks every thing is stationary, except destruction. Chandler saw numerous groves of lemons, oranges, and citrons, perfuming the air with the odour of their blossoms, and delighting the eye with their golden fruit. The Genoese possessed this beautiful isle about 240 years, but lost it in 1566. Opposite to Scio, on the Asiatic shore, is Chesmé, where the Turkish fleet was destroyed by the Russian, 1770. The inhabitants of Scio are supposed to be about 60,000*.

Samos. Samos is about thirty miles in length, and ten in breadth. This isle is also crossed by a chain of hills, and the most agreeable part is the plain of Cora. Tournefort computes the inhabitants at 12,000, all Greeks; with a Turkish Aga or military officer, and a cadi, or judge, magistrates usual in every Turkish district. The women are celebrated for their complete want of beauty, thus forming a remarkable exception to the other Greek isles. The pottery of Samos was anciently excellent; at present most branches of industry are neglected: but nitre, emery, and iron, might still be worked. Pitch is prepared from the pine trees in the north part of the island; and the silk, honey, and wax, are esteemed. Most of the mountains are of white marble, and swarm with game of various descriptions. The best haven is that of Vati, to the north-west. Some remains are observed of the celebrated temple of Juno†.

Cos. Cos is about twenty-four miles in length, by three or four in breadth; but has been little visited by modern travellers. Pliny styles Cos a most noble isle; and from it was derived the name and substance of the whet-stone. It is now covered with groves of lemon trees, and there is an oriental plane tree of vast size. The chief trade is in oranges and lemons; and Cos is the residence of a Turkish pasha‡.

Rhodes. Rhodes is about thirty-six British miles in length, by fifteen in breadth, an island celebrated in ancient and modern times. It is fertile in wheat, though the soil be of a sandy nature. The population is computed at about 30,000. The city of the same name, in which no Christian is now permitted to dwell, stands in the north end of the isle; and was anciently noted for a colossus in bronze, about 130 feet high, which could not have stood over the harbour as fabled, for it was soon cast down by an earthquake, and the fragments many centuries afterwards were sold by the Saracens; while if it had stood over the port, it must have fallen into the sea||. This isle was for two centuries possessed by the knights of St. John of Jerusalem, thence styled of Rhodes, till 1523, when it was taken by the Turks; and the emperor Charles V, assigned to the knights the island of Malta**.

Along the southern shore of Asia Minor, there are some small isles, among which is that of Castel Rosso, south-east of Patira. But they are of no moment, when compared with the large and celebrated island of Cyprus.

* Tournefort, p. 281. Van Egmont, i. 237, &c. Chandler, 48.
† Tournefort, i. 397. Dallaway, 251. ‡ Van Egmont, i. 262.
|| Gibbon, ix. 425.
** Van Egmont, i. 268, who gives a long description of Rhodes.

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Cyprus. This island is about 160 British miles in length, and about seventy at its greatest breadth. It was long possessed by the Ptolemies of Egypt, till it fell under the Roman power; when it remained a portion of the Byzantine empire, till it was usurped by a Greek prince, who was expelled by Richard I of England. This monarch bestowed the kingdom of Cyprus on the house of Lusignan, as a compensation for the loss of the throne of Jerusalem. In the fifteenth century, the heiress of the house of Lusignan resigned this isle to the Venetians; but in 1570 it was seized by the Turks. The soil is fertile, yet agriculture in a neglected state. The oxen are lean and of a small size: the sheep are of a better description. The chief products are silk, cotton, wines, turpentine, and timber. The wine of Cyprus is deservedly celebrated. The oranges are excellent; and the mountains are covered with hyacinths and anemonies, and other beautiful flowers. Cyprus is supposed to have derived its name from the abundance of copper ore; and it is said to have anciently produced gold, silver, and emeralds. What is called the Paphian diamond is a rock crystal found near Paphos; and there is a quarry of amianthus, while several hills consist chiefly of talc. The other mineral productions are red jasper, agates, green earth, and umber. The Cypriots are a tall and elegant race; but the chief beauty of the women consist in their sparkling eyes. To the disgrace of the Turkish government, the population of this extensive island is computed at 50,000 souls! Cyprus is pervaded by a chain of mountains, among which is a third *Olympus*, some primitive name, which seems to have been general for a mountain of great height. Van Egmont says that there is not one river in the island, he means that continues its course in the summer; but that there are many ponds, lakes, and fens, producing a damp and malignant air. The chief cities are Nicosia, the capital and residence of the governor and famagusta*.

* Van Egmont, i. 281. Mariti, &c.

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RUSSIAN EMPIRE IN ASIA.

CHAPTER I.

HISTORICAL GEOGRAPHY.

NAMES.—EXTENT.—BOUNDARIES.—ORIGINAL POPULATION.—PROGRESSIVE GEOGRAPHY.—HISTORICAL EPOCHS AND ANTIQUITIES.

EXTENT. THIS large portion of the habitable globe extends almost the whole length of Asia, from about the 37th degree of longitude east of London, to more than 190 or 170° of western longitude. As the northern latitude is very high, the degree shall only be assumed at 30 miles; and the length may thus be computed at 4590 geographical miles. The greatest breadth from the cape of Ceveri Vostochnoi, called in some maps Taimura, to the Altaian chain of mountains on the south of the sea of Baikal, may be 28°, or 1680 geographical miles. In British miles the length may be roughly computed at 5350; and the breadth at 1960: an extent which will be found to exceed that of Europe*.

BOUNDARIES. The furthest eastern boundary is that of Asia, and the seas of Kamchatka and Ochotsk; while the northern is the Arctic Ocean. On the west the frontiers correspond with those between Asia and Europe. The southern limits require more explanation. The river Cuban, part of the Caucasian chain, and an ideal line, divide the Russian territory from Turkey and Persia. The boundary then ascends along the north of the Caspian through the stepp

* Mr. Tooke, in his View of the Russian Empire, computes the whole, including the European part, at 9,200 English miles in length, and 2,400 in breadth.

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or desert of Issim, and the eastern shore of the river Ob, to where it issues from the Altaian mountains, when it meets the vast empire of China; and proceeds along that chain to the sources of the Onon, where it includes a considerable region called Daouria, extending about 200 miles in breadth, to the south of the mountains called Yablonnoy; the limit between Russia and Chinese Tatary being partly an ideal line, and partly the river Argoon, which joined with the Onon, constitutes the great river Amur. Thence the boundary returns to the mountainous chain, and follows a branch of it to a promontory on the north of the mouth of the Amur.

ORIGINAL POPULATION. The population of Asiatic Russia may be regarded as wholly primitive, except a few Russian colonies recently planted, and the Techuks in the part opposite to America, who have been supposed to have proceeded from that continent, as already mentioned, because their persons and customs are different from those of the other Asiatic tribes. Next to the Techuks, in the furthest north, are the Yukagirs, a branch of the Yakuts*, and yet further west the Samoieds. To the south of the Techucks are the Coriaks, a branch of the same race: and yet further south the Kamchadals, a distinct people, who speak a different language. The Lamuts are a part of the Mandshurs or Tunguses, who have been vaguely called Tartars, or Tatars, though they neither belong to that race, nor to the Monguls. The Tunguses are widely diffused between the Yenesei and the Amur: and the southern tribes ruled by a khan or monarch, conquered China in the seventeenth century. The Ostiaks, and other tribes of Samoieds, have penetrated considerably to the south between the Yenesei and the Irtish, and are followed by various tribes of the Monguls, as the Calmucs, Burats, &c., and by those of the Tatars or Huns, as the Teluts, Kirguses, and others. The radically distinct languages amount to seven, independent of many dialects and mixtures†.

NAMES. The vast extent of northern Asia was first known by the name of Sibir or Siberia; but this appellation seems gradually to pass into disuse. When the Monguls established a kingdom in these northern regions, the first residence of the princes was on the river Tura, on the spot where now stands the town of Tiumen, about 180 miles south-west of Tobolsk‡. But the khans afterwards moved to the eastern shore of the Irtish, where they founded the city of Isker near Tobolsk. This new residence was also called Sibir, from what etymon or cause is not explained; and the name of the city passed to the Mongul principality‖. When the Russians began the conquest of the country, being unconscious of its extent, the name of this western province was gradually diffused over half of Asia.

* The Yakuts are expelled Tatars from the south, as the Russian writers decide from their language, traditions, and manners. The far greater part of the Monguls and Mandshurs are subject to China: and the Tatars are best observed in Independent Tatary.

† See the Hist. des Decouvertes Russes, &c. Berne 1779. 1787. six vols. 8vo., being an abstract of the travels of Pallas, Gmelin, Ghiorghi, &c.

‡ Tooke's Russia, ii. 60.

‖ This is doubtful, Coxe, 182. Muller thinks the denomination was used by the Permians, a Finnish nation on the confines of Siberia.

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PROGRESSIVE GEOGRAPHY. The progressive geography of this vast part of Asia, commences at a recent period; nor was it disclosed to the attention of civilized Europe till the middle of the sixteenth century. It is indeed a singular circumstance in human affairs, that America may be said to have been discovered before Asia, though it be natural to suppose that the latter would have engaged a more deep and immediate interest, because the barbarous swarms in the extremity of Asia had repeatedly astonished and almost subjugated Europe. It has already been mentioned, that in 1242, the Monguls under Sheibani established a principality in the western part of Siberia, around Tobolsk, and the river Tura, whence this principality was sometimes styled that of Turan*. The history of this distant principality is obscure, and lost in the superior splendor of the other Mongul dynasties.

In the reign of Ivan Vasilivitch, the first of both these names, and by his conquest over the Tatars the founder of Russian greatness, some incursions were made as far as the river Ob, and some Mongul chiefs were brought prisoners to Moscow†. But more than half a century elapsed before the real conquest of Siberia commenced in the reign of Ivan Vasilivitch II, who ascended the Russian throne in 1534. Trogonaff, a Russian merchant of Archangel, having opened a traffic for Siberian furs, the tzar was induced to attempt the conquest of the country which supplied them; and in 1558 had added to his titles that of lord of Sibir, or Siberia. Yermac, a Cossac chief, being forced by the Russian conquests in the south to take refuge near the river Kama with 6000 of his followers, he afterwards directed his arms against Kutchum the Mongul khan of Sibir, whom he defeated and expelled; but perceiving that his power was precarious, in 1582, he claimed and obtained the protection of Russia. Yermac soon after perished, and the Russians retreated; but towards the beginning of the seventeenth century they had firm establishments, and one Cyprian was appointed first archbishop of Sibir in 1621, residing at Tobolsk, where he drew up a narrative of the conquest. Towards the middle of the seventh century the Russians had extended as far east as the river Amur; but Kamchatka was not finally reduced till the year 1711. Beering and other navigators afterwards proceeded to discover the other extreme parts of Asia. In his first voyage of 1728, Beering coasted the eastern shore of Siberia as high as latitude 67° 18′, but his important discoveries were made during his voyage of 1741. The Aleutian isles were visited in 1745; and in the reign of the late empress, other important discoveries followed, which were completed by those of Cook.

In the south the Mongul kingdom of Cazan having been subdued in 1552, and that of Astracan in 1554, and the Russian monarchy extended to the Caspian sea; a considerable accession was added to the progressive geography by the chart of that sea drawn by command of Peter the Great. It hence appeared that all geographers, ancient and modern, had mistaken the very form of the Caspian, which extends greatly from north to south instead of spreading from east to west, as formerly delineated. In the reign of the late empress many important additions were made to the progressive geography by Pallas and other

* This must not be confounded with the Touran (or Tatary) of the Persians
† Coxe's Russia, Dis. p. 177.

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scientific travellers, and a Russian atlas was published, which may be regarded as nearly complete.

Historical Epochs. The Russian power in Asia is of such recent origin, that it affords few historical epochs except those which have been already mentioned in the progressive geography. The history of Capschak, or the kingdom of Astracan*, before and after the conquest of the Monguls, is obscure and uninteresting; nor can that of Cazan or Kazan, a more northern and barbarous state, claim superior attention. The city of Kazan was built in 1257, and became the capital of a small independent Mongul principality, partly in Europe and partly in Asia, A. D. 1441. The Russians assert that they possessed Astracan before the invasion of the Monguls, in the thirteenth century; but while even this is doubtful, other parts of the history of Asiatic Russia cannot be supposed to be very clear†. The acquisitions on the frontiers of Turkey and Persia are recent and well known events.

As the Russian empire in Asia borders for a great extent upon Chinese Tatary, or rather the Monguls and Mandshurs, who acknowledge the protection and supremacy of China, it may be proper here to commemorate a few events which have arisen from this proximity. It has already been observed, that about the middle of the seventeenth century, the Russians had advanced to the river Amur; here they subdued some Tungusian tribes, and built some small fortresses. The Chinese monarch, Camhi, having formed a similar design, the two great powers unavoidably clashed; open hostilities commenced about 1680, and the Chinese destroyed the Russian forts. In August 1689, the treaty of Nershinsk, so called from the town in Daouria, was signed by the Russian and Chinese plenipotentiaries, and the limits specified were a chain of mountains far to the north of the Amur, and the source of the small river Gorbitza, thence to where that river joins the Amur, and lastly along the Argoon or Argounia, &c‡. By this treaty the Russians assert that they not only lost a wide territory, but also the navigation of the river Amur, which would have been of great consequence to their remote possessions in Asia: yet the advantage was gained of a commercial intercourse with the Chinese. In 1727, the limits were continued westward from the source of the Argoon to the mountain Sabyntaban, near the conflux of two rivers with the Yenesei, the boundary being thus ascertained between the Russians and the Monguls subject to China. The trade with China has been latterly conducted at Zuruchaitu, on the river Argoon, lat. 50. long. 117., and at Kiachta, about ninety miles south of the sea of Baikal, lat. 51. long.

* Capschak once spread through the whole Mongul conquests in Muscovy, including the Crimea, Astracan, Cazan, and Kipzak, on the north of the Caspian.

† The curious genealogical history of the Tatars by Abulgasi-Chan gives little information concerning the northern dynasties. The manuscript was brought from Siberia by Baron Strahlenberg, one of the Swedish prisoners, and the French translation, published 1726, is said to be by one De Verannes, but perhaps by M. Bentink. The long and instructive notes by M. Bentink were collected apart, and form the description of Tatary in the Recueil des Voyages du Nord, tome x, and the Histoire Generale des Voyages, tome vii.

‡ Coxe, 290. Du Halde, iv.

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106*. This boundary between two states is the most extensive on the globe, reaching from about the sixty-fifth to the 145th degree of longitude; eighty degrees (lat. fifty) computed at thirty nine geographical miles, will yield the result of 3120 miles. Its history therefore, becomes singular and interesting; but it is probable that the Russians will insist upon extending the boundary to the river Amur, which would form a natural limit, as there are no chains of mountains in a proper direction further to the south between their empire and China.

The most curious antiquities seem to be the stone tombs which abound in some stepps, particularly near the river Yenesei, representing in rude sculpture human faces, camels, horsemen with lances, and other objects. Here are found, besides human bones, those of horses and oxen, with fragments of pottery and ornaments of dress†.

* Mr. Coxe, p. 212, unaccounably says thirty-five degrees north lat.
† Dec. Russ. vi. 210.

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CHAPTER II.

POLITICAL GEOGRAPHY.

RELIGION.—ECCLESIASTC GEOGRAPHY.—GOVERNMENT.—LAWS.—POPULATION.—COLONIES.—ARMY.—NAVY.—REVENUES.—POLITICAL IMPORTANCE AND RELATIONS.

RELIGION. THE Grecian system of the Christian faith, which is embraced by the Russians, has made inconsiderable progress in their Asiatic possessions. Many of the Tatar tribes in the south-west are Mahometans; and others follow the superstition of Dalai Lama, of which an account shall be given in the description of the Chinese empire. But the more eastern Tatars are generally addicted to the Schaman religion, a system chiefly founded on the self-existence of matter, a spiritual world, and a general restitution of all things*. The Schamanians even believe that the Burchans, or gods themselves, arose from the general mass of matter and spirit. Their epochs of destruction and restitution somewhat resemble those of the Hindoos. While common souls immediately receive their final decree, the virtuous become chubils, or wandering spirits, who are purified by transmigration, so as also to become Burchans, or gods. Between men and gods are the Tengri, or spirits of the air, who direct sublunary affairs, and all the trifles so important to man, but beneath the most remote attention of the gods. The infernal regions chiefly contain those who have offended the priesthood. This system is intimately connected with that of the Dalai Lama, and is so widely diffused that some have asserted Schamanism to be the most prevalent system on the globe†. In Asiatic Russia it is professed by most nations, as a great part of the Tatars, with the Fins, Samoieds, and Ostiaks, the Mandshurs, and Burats, and Tunguses; and has even passed to the Coriaks, and Techucks, and people of the eastern isles‡. The population indeed of Asiatic Russia scarcely exceeds five millions, but many of the Chinese are Schamanians, and the system is intimately connected with that of the Brahmins, or rather of Boodh. On the eastern coast of the sea of Baikal is the rock of the Schamans, an idol of a singular shape, and among the inferior spirits may be named the Garan, or aquatic faries, the Ilguirki

* Tooke's Russia, 1783. iv. 42.

† In his first volume Mr. Tooke asserts that this system is the parent of Brahminism; and that the Schamanians are by Strabo called *Germanians*, by Clemens Alexandrinus *Sarmanians*, by Porphry *Samanians*.

‡ Tooke's Russia, 1783, iii.

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those of the earth, Temir Kam those of the mountains, and Vodasch those of the forests. But as the Schamanians admit one chief infernal deity and his subalterns, authors of evil, so they believe in one supreme uncreated beneficent being, who commits the management of the universe to inferior deities, who delegate portions of it to subaltern spirits. With more philosophy they might suppose that evil cannot exist except in matter, and that an evil spirit is a contradiction in terms. It might afford a subject of curious inquiry to investigate whether Schamanism be the parent of the Boodian, and Brahmin system, as some suppose, preserved in its original state among these barbarous tribes: or only a corruption of those diffused from India. Few literary topics can be more interesting, as it would not only embrace the sources of the Hindoo mythology, but also those of classical paganism.

The archiepiscopal see of Tobolsk is the metropolitan of Russian Asia in the north, and that of Astracan in the south. There is another see that of Irkutsk and Nershinsk; and perhaps a few others of recent foundation.

GOVERNMENT. Siberia is divided into two great governments, that of Tobolsk in the west, and Irkutsk in the east. The smaller provinces are Kolivan, Nershinsk, Yakutsk, and Ochotsk. In the south-west is the government of Caucasus, with one or two other divisions, intermingling Europe and Asia. At a distance from the capital the government becomes proportionably lax, and tribute is the chief mark of subjection.

POPULATION. The population of Siberia cannot be computed at above three millions and a half*: so that Europe can in future have little to apprehend from the Tatarić swarms.

COLONIES. Small Russian colonies have been established in several of the distant provinces and isles.

POLITICAL IMPORTANCE AND RELATIONS. The political importance and relations of this part of the Russian empire chiefly relate to China and Japan. The late empress had it is said, projected the conquest of Japan, which might perhaps have imparted a spirit of industry to her continental possessions in that quarter; and it was computed that 10,000 Russians could have conquered China. But the subjection of many parts of what was called Independent Tatary have given to China a military frontier, and the proximity to Pekin the capital being so much greater, the Chinese efforts would be speedy and probably decisive; while the march of Russian reinforcements through such wide and barren regions, would be difficult and hazardous. In fact, on settling the frontier, the Russians were overawed by superior numbers, though it is probable, that at no distant period, the river Amur, also called the Sagalien Oula, may be established as the boundary. The conquest of Japan, though more difficult than may have been conceived, affords many commercial temptations, but that of China would seem too vast even for the most grasping ambition. It is also asserted, that the late empress, in case of a war with England, meditated to send an army from her Asiatic possessions to Hindostan,

* Tooke's View, ii. 152.

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through the provinces on the east of the Caspian, by Samarcand, and Cashmir to the Ganges. This indeed would be but a trifling effort compared with the marches of Zingis, Timur, and other oriental chiefs. But the mode of warfare is greatly changed. When Voltaire instigated Catharine to seize Constantinople, she replied that an epic poet easily might; but that modern armies consist of men who eat, and all her power could not produce magazines of provisions. This difficulty would be found far more cogent in a march of greater length, except that the powers in the north of India were unanimous in the favour of the Russians.

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CHAPTER III.

CIVIL GEOGRAPHY.

MANNERS AND CUSTOMS.—LANGUAGE.—LITERATURE.—EDUCATION.—CITIES AND TOWNS.—MANUFACTURES AND COMMERCE.

MANNERS AND CUSTOMS. THE manners and customs of Asiatic Russia vary with the numerous tribes, by whom that extensive region is peopled. The Tatars properly so called, are the most numerous, not only remaining in their ancient kingdom of Sibir, but constituting many other tribes in the west, as the Nogays, the Kirguses or Kaizacks, the Bashkirs, and other tribes as far as the sources of the river Ob. Next in importance are the Monguls, of whom one tribe the Kalmuks, are found to the west of the Caspian; while the others, called Burats, Tonguts, &c., are chiefly around the sea of Baikal. Yet further to the east are the Mandshurs, or Tonguses. Such are the three radically distinct divisions of men, whom former European ignorance classed under the general name of Tartars.

The manners of the Tatars, who are the same people with the Huns of antiquity, are minutely described by those authors who have delineated the fall of the Roman empire, prior to which period they seem to have been absolutely unknown to the ancients, though many modern authors have erroneously confounded them with the Scythians of Herodotus, and other Gothic tribes, who were afterwards vanquished, or expelled by the Tatars. Nor are the Seres, a mild industrious race, to be regarded as Tatars, but as, perhaps, northern Hindoos*. It would be superfluous to enter into a detail of the manners and customs of the various nations in Asiatic Russia, for which the reader may be referred to the works of Pallas, and other recent travellers. In so ample a theme the difficulty is to select; and the manners of the Monguls may be chosen as a specimen. Those of the Russian empire are wholly Nomadic, their herds consisting of horses, camels, oxen, sheep, and goats. The women tan leather, dig the culinary roots, prepare the winter provisions, dried or salted, and distil the koumiss, or spirit of mare's milk. The men hunt the numerous beasts, and game, that roam through the vast wilds. Their tents are formed of a kind of felt, and in some parts they erect little temples, and the priests have also

* The Bucharian language has not been investigated.

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wooden hovels around the temples. The Kalmuks are divided into three ranks: the nobility, whom they call white bones; the common people, who are bondmen, and termed black bones; and the clergy, descending from both, who are free*. In like manner the noble ladies are called white flesh; and the common women black flesh: but pedigrees are only reckoned by the bones. The power of the *Taidsha*, or chief prince, consists solely in the number and opulence of his subjects, territory being of no estimation in so wide a region. These subjects form an *Oluss*, divided into *Imaks*, from 150 to 300 families; each Imak being commanded by a *Saissan*, or noble. If there be a great Khan, or emperor, the princes are only guided by him in affairs of general importance. The tribute is about a tenth part of the cattle, and other property; but on the first summons every man must appear on horseback before the prince, who dismisses those who are unfit for the fatigues of war. The weapons are bows, lances, and sabres, and sometimes fire arms; and the rich warriors are clothed in mail of interwoven rings, like that used in Europe till the fifteenth century. But they cannot oppose regular armies, and are apt even to disorder that of their allies.

The Monguls are rather short in stature, with flat visage, small oblique eyes†, thick lips, and a short chin, with a scanty beard. The ears are very large and prominent, the hair black, and the complexion of a reddish, or yellowish brown; but that of the women is clear, and of a healthy white and red. They have surprising quickness of sight and apprehension; and are docile, hospitable, beneficent, active, and voluptuous. Industry is a virtue entirely female; yet great, and accompanied with perpetual cheerfulness. Their religious books are in the dialect of Tangut, or Tibet, and there is a schoolmaster in every Imak, who imparts more knowledge to the boys than would be expected. Marriages are celebrated at an early age; and the bride brings a dower in cattle, or sheep. The tent has a fire place in the middle; and in the deserts dried cow dung is used for fuel. The tents of the nobles are hung with silk, and the floor covered with carpets of Persia. The household utensils are numerous; and in the superior tents are vessels of pewter, silver, and porcelain. The dress consists of a flat yellow bonnet, while the head is shaven, except one lock. The trowsers are wide, the vest of light stuff with narrow sleeves, and a girdle which supports the sabre, knife, and implements for smoking tobacco. The outer garment is of cloth, with wide sleeves, and linen is wound about the feet, over which are drawn buskins of leather, generally black or yellow. Shirts are unknown: and the dress of the women is the same, but instead of the outer garment they wear a gown without sleeves. The hair of the females is long, and plaited in tresses. Animal food is abundant, and sometimes mixed with vegetable; while the general drink is water; but they sometimes indulge in sour milk, prepared after the Tatarian manner, buttermilk, and koumiss, but mead and brandy are now greater favourites. When

* Tooke, iv. 14.

† The eye ascending towards the temples, like the Chinese, seems a peculiar feature of the Monguls and Mandshurs. The Tatar eye is small, but straight, or horizontal.

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pasturage begins to fail, the whole tribes strike their tents, generally from ten to fifteen times in the year, proceeding in the summer to the northern, and in the winter to the southern wilds. The herds, men, women, and children, form a regular procession; and are followed by the girls, singing with harmony and spirit. The amusements of these jovial wanderers consist in running races on horseback, in which even the girls excel; archery, wrestling, pantomime, dances, and the songs of the young women, generally accompanied by the lute, viol, and pipe, the themes of their ditties being gigantic tales of chivalry, and amorous adventures and sentiments, but the melody is harsh and dismal. Cards are not unknown, but chess is the favourite game. The bodies of the princes, and chief priests are burnt with many solemnities; and the tombs are sometimes walled, and ornamented with high poles and fantastic drapery.

Mr. Tooke has printed some curious pieces of Kalmuk poetry, from which a characteristic specimen shall be selected, being an elegy on the secession of a hord on the Volga, which, disgusted by the Russian domination sought the protection of China*.

"The water of the vast ocean,
When it has raged with all its fury, becalms itself again;
This is the course of the world; and likewise still to forget.
Ye white herds, with the mark of Schæbiner!
Thou prince Schereng, in the van as conductor,
Riding on thy noble reddish-bay horse;
The prince Zebek following with his numerous troop,
Ah! Ubaschakhan, conduct as now the Torgots!
There over rocks, over stones, and rough places,
The herds drag themselves along, and become lean,
By flying over the land all covered with snow and frost.
Ah! how the droves trot over the snow!
Now you are got thither and come to your resting place.
Why was there any quarrel between thee and the white Khan†?
Ye otherwise peaceful Torgots between the Yaik and the Volga,
How far ye now retreat!
Ah! the beautiful Volga (Idshol) is abandoned by the Torgot.
Ah! the lovely stream of Mazak is now likewise become an orphan.
Ah! thy many excellent young princes,
Ye are now all marched far away over the Yaik.
Ah! thou well-arranged troop of Torgots,
Art now perhaps arrived at the Irtisch (Ertschis).
Ah! helpless lamentable time!
Thou excellent host of warriors marching towards Altai,
Ye have no princely women among you!
Fare ye well, ye who bring up the rear of the hord,
Princes Aksakal and Kirep!"

Such, with some slight shades of difference, are also the manners of the Tatars and Mandshurs; and Rousseau might, with far more plausibility, have inquired concerning the perfection, and happiness of man among those spirited and gay tribes of barbarians, than among the savages of Africa, or America.

* Russia 1783, 4 vols. 8vo. vol. iv. p. 66.

† Zagan Khaian, the name by which the Russian monarch is known among almost all the eastern nations.

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Concerning the manners of the Samoides little is known, as on inquisitive traveller has visited their bleak and barren heaths, and marshes. Mr. Pennant has styled them the Hottentots of the north, and describes them as resembling the Laplanders, but far more ugly and brutal*. They use the rein deer to draw their sledges, but seem strangers to its milk, and feed foully on quadrupeds, and fish.

A late ingenious traveller affords more precise information concerning the manners of the Kamchadals, and the Techucks, the most remote people of Asiatic Russia†. He travelled in the winter, when the snowy hurricanes were often so thick as to obstruct the view as much as a heavy fog.

KAMCHADALS. The isbas, or balagans, huts of the Kamchadals, are in the south raised on posts, about twelve or thirteen feet high, for the purpose of drying their fish, almost their only food. A cotton shirt is worn next their skin, with trowsers, and a loose frock of deer skin; the boots are of tanned leather, and the cap of fur. The men are chiefly occupied in catching fish, and in the summer the women proceed to the woods to gather fruits and vegetables, when they abandon themselves to a kind of bacchanalian frenzy. The Kamchadals are of small stature, with little hollow eyes, prominent cheek bones, flat nose, black hair, scarcely any beard, and a tawny complexion. They considerably resemble the Japanese; and their character is mild and hospitable. Instead of the rein deer, the dogs, which resemble the shepherd curs of France, draw a light sledge, upon which the traveller sits in a side position. In the north of Kamchatka, the hovels are partly excavated under ground, like those which Dr. Brown observed near Belgrade, for the sake of warmth, but the confined air and stench are almost insupportable.

TECHUCKS. The Techucks, who in all scarcely exceed a thousand families, are generally found in small camps, pitched by the side of the rivers. The rude tents are square, consisting of four poles supporting skins of rein deer, which also form the covering; before every tent, are spears and arrows, fixed in the snow against any sudden attacks of the Koriaks, who, though of the same race, are a more malicious and enterprising people. In the midst is a stove, and the bed consists of small branches of trees spread on the snow, and covered with deer-skins. Their habitations and food are dirty and disgusting; and the dress of the women consists only of a single deer skin fastened at the neck, so that on loosing one knot the lady remains naked. The features are coarse, but they have not the flat noses, nor little hollow eyes of the Kamchadals; and Lesseps pronounces their countenance to have nothing of the Asiatic form, in which assertion he has been preceded by Pallas and Tooke. Even the Koriaks are supposed not to exceed 2000 families‡.

Further to the west the Yakuts, around the town called Yakutsk, and a tribe of the same people, called Yukagirs, near the Arctic ocean,

* Arc. Zool. p. cliv.

† Travels in Kamchatka by Lesseps, 1790, 2 vols. 8vo. Lesseps attended La Perouse, and returned with dispatches through Asiatic Russia.

‡ Lesseps, ii. 84.

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are degenerate Tatars who fled into these remote regions from the power of the Monguls, and preserve their language and manners, as far as a more severe climate will permit. The Ostiaks are chiefly Samoieds, though some of their tribes seem to be Fins, who, in the interchange of nomadic nations have passed from the European side of the Uralian chain.

Upon the whole, the three distinct barbaric nations of Tatars, Monguls, and Tunguses, or Mandshurs, are by far the most interesting in these middle regions of Asia, as their ancestors have overturned the greatest empires, and repeatedly influenced the destiny of half the globe. The vague name of Tartary is nearly discarded from our maps, and might yield with far greater precision to names derived from the seats of the chief nations, as Tungusia, or Mandshuria, in the east, Mangolia in the centre, and Tataria in the west. Of these the Monguls are the chief people, and the account already given of their manners will suffice with the preceding descriptions of some other tribes, to impart an idea of the ethical condition of Asiatic Russia.

Language. The languages of all these original nations are radically different; and among the Tunguses, Monguls, and Tatars, there are some slight traces of literature; and not a few manuscripts in their several languages. The history of the Tatars, by Abulgasi, is a favourable specimen of Tataric composition. The late emperor of China ordered many of the best Chinese works to be translated into the Mandshur language, which, having an alphabet, may be more easily acquired than the original. In the Mongul language there are also many books, written in the various countries to which their wide conquests extended. Superior, even amid their barbarism, to the chief original nations of Africa, and America, the central races of Asia deserve an attention which has been lavished upon inferior objects.

Cities and Towns. In Asiatic Russia the principal city is Astracan, at the mouth of the Volga, which is supposed to contain 70,000 inhabitants. This city was founded by the Tatars, or rather Monguls of Kipschak, yet some assert that the Russians built Astracan before Batu, the Mongul conqueror, seized this region. In 1554, the Monguls were expelled; and in 1569, it was besieged by the Turks, who, being suddenly attacked by the Russians, were defeated with great slaughter. In 1672, it fell under the destructive power of the insurgent Rasin, who, in a few years, met with a deserved punishment. Astracan is built on several small hills, that rise amid the meadows of the Volga. The fortress on the west is triangular, but the walls of the city are neglected. The wooden houses have exposed it to frequent conflagrations, and attempts have been vainly made to enforce the use of brick. Vines are cultivated in the neighbourhood, and other fruits abound. There are twenty-five Russian churches, and two convents. The Armenians, Lutherans, and Papists, have also their places of worship; and even the Hindoos have been permitted to erect a temple*. The chief trade of Astracan is in salt and fish, particularly sturgeon, and kaviar, from the Volga; and it also attracts some portion of oriental commerce. The fishery on the Caspian, which centers at Astracan, is esteemed of the utmost consequence to the empire.

* Tooke's Russia, iv. 341, &c.

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AZOF. Azof, on the Asiatic side of the Don, is of small importance, except as a fortified post. The chief towns on the Asiatic side of the Volga are Sumara and Stauropol. At the mouth of the river Ural, or Jaik, stands Gurief; but the chief place after Astracan is Orenburg, founded in the year 1740, to protect the acquisitions in these parts, and promote their commerce. Nor have these views failed, for Orenburg is the seat of a considerable trade with the tribes on the east of the Caspian.

TOBOLSK. On passing the Uralian chain first occurs the city of Tobolsk, which only contains about 15,000 souls, but is esteemed the capital of Siberia. Being mostly built of wood, it was nearly consumed by a violent fire about 1786; but it is believed is now rebuilt chiefly of stone. Tobolsk is more distinguished as the residence of the governor and archbishop, than for the importance of its commerce. The upper town stands on a hill, on the east side of the Irtish, and contains a stone fortress of some strength. Indian goods are brought hither by Kalmuk and Bucharian merchants; and provisions are cheap and plentiful.

KOLYVAN. Kolyvan is a town of some consequence on the river Ob. In the neighbourhood there are silver mines of considerable produce. To the north of Kolyvan is Tomsk, said to contain about 8000 souls.

Further to the east the towns become of less consequence, but a village attracts attention when situated in a desert. On the river Yenesei is a small town of the same name; and another called Sayansk, whence the adjacent part of the Altaian chain is called the mountains of Sayansk.

IRKUTSK. On the river Angara, which issues from the sea of Baikal, stands Irkutsk, supposed to contain 12,000 inhabitants. There are several churches and other edifices of stone, and the wooden houses are large and convenient. Irkutsk is the chief mart of the commerce between Russia and China, the see of an archbishop, and the seat of supreme jurisdiction over eastern Siberia*. The numerous officers, and magistrates have introduced the customs and fashions of Petersburg, and European equipages are not uncommon in this distant region.

YAKUTSK. On the wide and frozen Lena stands Yakutsk, with some stone churches, but the houses are mostly of wood, and inhabited chiefly by Russians, as the Yakuts are fond of a wandering life. Lesseps says, that the Lena is here about two leagues in width, (though about 700 miles from its mouth), but is greatly impeded with ice; and there are only a few small barks, chiefly employed in supplying the town with provisions. Ochotsk, on the sea of the same name, may be rather regarded as a station than a town.

MANUFACTURES. There are some manufactures, particularly in leather, at Astracan; and salt is prepared there, and in several other places in Asiatic Russia. Isinglass is chiefly manufactured on the shores of the Caspian, from the sounds or air bladder of the sturgeon, and the beluga. Kaviar is the salted roe of large fish. There is a con-

* Lesseps, ii. 344.

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siderable fabric of nitre, about forty miles to the north of Astracan; but though aluminous earth abound near the Argoon, and Yenesei, yet it is almost neglected. The Tatars and Bashkirs make felts of a large size, some of which are exported. The Russia leather is chiefly fabricated in the European provinces, being tanned with willow bark, and afterwards stained. Shagreen is prepared from the hides of horses, or asses, but only a particular part of the back is fit for this purpose; and the grain is given with the hard seeds of the greater orach, pressed into the leather while moist*. Pitch is made by the boors from the pines of Siberia. Near the Uralian mountains are several manufactures in iron and copper.

Commerce. The chief commerce of this part of the Russian empire consists in sables, and other valuable furs, which are eagerly bought by the Chinese, who return tea, silk, and nankeen. That with the Kirguses consists in exchanging Russian woolen cloths, iron, and household articles, for horses, cattle, sheep, and beautiful sheep skins. On the Black Sea there is some commerce with Turkey, the exports being furs, kaviar, iron, linen, &c. and the imports wine, fruit, coffee, silks, rice. In the trade on the Caspian the exports are the same; but the return chiefly silk. The principal Russian harbours are Astracan, Gurief, and Kisliar, near the mouth of the Terek, but the best haven is Baku, belonging to the Persians. The Tatars, on the east of the Caspian, bring the products of their country, and of Bucharia, as cotton yarn, furs, stuffs, hides, rhubarb; but the chief article is raw silk, from Shirvan, and Ghilan, on the west of the Caspian.

* Tooke's View, iii. 531.

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CHAPTER IV.

NATURAL GEOGRAPHY.

CLIMATE AND SEASONS.—FACE OF THE COUNTRY.—SOIL AND AGRICULTURE.—RIVERS.—LAKES.—MOUNTAINS.—FORESTS.—BOTANY.—ZOOLOGY.—MINERALOGY.—MINERAL WATERS.—NATURAL CURIOSITIES.

CLIMATE AND SEASONS. IN Asiatic Russia the climate extends from the vine at the bottom of Caucasus, to the solitary lichen on the rocks of the Arctic ocean. Through the greater part of Siberia, the most southern frontier being about 50°, while the northern ascends to 78°, the general climate may more justly be regarded as frigid than temperate; being, in three quarters of the country, on a level with that of Norway and Lapland, untempered by the gales of the Atlantic. To the south of the sea of Baikal, the climate parallels with that of Berlin, and the north of Germany, so that the finest and most fertile regions in middle Asia belong to the Chinese. The chains of high mountains which form the southern boundary of these provinces, also contribute to increase the cold; and the sea of Baikal is commonly entirely frozen from December till May. The finest climate in these eastern parts seems to be that of Daouria, or the province around Nershinsk; and the numerous towns on the Amur evince the great superiority of what is called Chinese Tatary, which is comparatively a fertile and temperate region. The change of the seasons is very rapid: the long winter is almost instantaneously succeeded by a warm spring; and the quickness and luxuriance of the vegetation exceed description.

FACE OF THE COUNTRY. In a general view of Asiatic Russia, the northern and eastern parts present vast marshy plains, covered with almost perpetual snow, and pervaded by enormous rivers, which, under masses of ice, pursue their dreary way to the Arctic ocean. Even the central parts of Siberia seem destitute of trees, vegetation being checked by the severe cold of so wide a continent. Towards the south there are vast forests of pine, fir, larch, and other trees, among which is a kind of mulberry, which might probably thrive equally in many climates which are now destitute of that valuable tree. The sublime scenes around the sea of Baikal, are agreeably contrasted with the marks of human industry, the cultivated field and the garden*. Even in the south, the rivers have already acquired the size of the Danube, and the Rhine, and they are navigable with safety for a great extent. The vast

* See Bell's animated description of this region.

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plains called stepps constitute a feature almost peculiarly Asiatic; but the mountains do not correspond in dignity, rather resembling the Appenines than the Alps, or even the Pyrenees.

Soil and Agriculture. Many parts of Siberia are totally incapable of agriculture; but in the southern and western districts the soil is of remarkable fertility. Towards the north of Kolyvan, barley generally yields more than twelve fold, and oats commonly twenty fold*. Buck wheat, in this black light mould, is apt to run into stalk, but sown in the poorest spots yields from twelve to fifteen fold. Exclusive of winter wheat, most of the usual European grains prosper in southern Siberia. It is remarkable that the culture of potatos has not yet appeared, the Russians having some strange prejudice against that invaluable plant. In some parts flax grows wild, and hemp is also prepared from the nettle. Woad is found in Siberia, and saffron near the Caucasus. The culture of the olive tree has been attempted near Astracan, and the heat of the summer was sufficient, but the winter cold too severe. The best rhubarb abounds on the banks of the Ural, or Jaik, in the southern districts watered by the Yenesei, and in the mountains of Daouria, and might be cultivated with advantage in these its native regions.

But in all parts of the Russian empire agriculture has made little progress; nor indeed is it possible while the peasantry are slaves, and sold with the soil: and if even a free farmer acquire a little money, a noble neighbour will seize the fruits of his industry. In spite of these obstacles an intelligent traveller was surprised at the abundance of buck wheat, rye, barley, oats, and other grain which he observed to the south of Tobolsk; where the cattle were also very numerous, and in the winter fed with hay†. Nay, he assures us that in 1720, when he accompanied the Russian ambassador to Pekin, he observed to the south of the sea of Baikal rich crops of *wheat*, rye, barley, oats, buck wheat, and peas, besides culinary plants; but the inhabitants had not then begun to plant any fruit trees, though in his opinion they would prosper, as the snow never lay above two months on the ground‡. The large garden strawberry, called haut-bois, is found wild in the territory of Irkutsk: and on the Altaian mountains, the red currant attains the size of a common cherry, ripening in large bunches of excellent flavour. Near the Volga and the Ural, are excellent melons of various kinds. Bees are not known in Siberia; but among the Bashkirs, to the west of the Uralian chain, form an article of great advantage to the farmer.

Rivers. Some of the largest rivers of Asia belong to the Russian empire, nearly equalling in the length of their course any others on the globe. The Ob, including its wide estuary, may be said to hold a comparative course of 1900 British miles; while that of the Yenesei is about 1750; and that of the Lena 1570. In the same mode of mensuration the Hoan Ho of the Chinese, will, in its wandering progress, exceed the Ob; while the Kian Ku, pervading the centre of China, may be traced, if the Porticho be included, for a length of about 2300 miles!

* Tooke's View, iii. 238. † Bell, i. 228. 8vo. edition. ‡ Ib. 326.

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Ob. The Ob may be traced from the lake of Altyn, latitude 51°, if its source be not even followed along the Shabekan river to latitude 47°. The upper Irtish flows into the lake of Saisan, whence it issues under the name of Lower Irtish, and after a circuit of great extent joins the Ob below Samarof. It rises about the 45°, and ought perhaps to be regarded as the principal stream. But such doubts are frequent concerning the Siberian rivers in particular, the names, and distinctions proposed by ignorant barbarians, usurping the place of exact geography. However this be, the Ob, piercing the Altaian chain, after having received many small streams, passes Kolyvan, and at some distance to the north, receives the Tomm, and other large rivers from the east. Below Samarof, as already mentioned, it receives the great river Irtish, and runs into the sea of Ob, a gulf of the Arctic ocean. The Ob is navigable almost to its source, that is to the lake of Altyn, and abounds with fish, but the sturgeon of the Irtish are the most esteemed. After it has been frozen for some time, the water becomes foul and fetid, owing to the slowness of the current, and the vast morasses; but the river is purified in the spring by the melting of the snow.* This is justly and universally esteemed the largest river in the Russian empire. The shores and channel are generally rocky till it receive the Ket; after which the course is through clay, marl, sand, and morasses.

Yenesei. Next is the Yenesei, which is considered as deriving its source from the mountains to the south-west of the Baikal, in the river called Siskit; but the name Yenesei is not imparted till many streams have joined, when it holds its course almost due north to the Arctic ocean. Yet with far more propriety might the Yenesei be derived from the sea of Baikal, whence flows the Angara, afterwards absurdly called Tunguskaf, being a stream of more length and importance than the Yenesei, so that the name of Angara might be continued till it join the Arctic sea. This river has some rapids, but is navigable for a great way.

Angara. The Angara, afterwards called Tunguska, is said to be about a mile in breadth, when it issues from the Baikal, and is so clear that the pebbles at the bottom may be seen at the depth of two fathoms‡. The channel is full of rocks for the space of about a mile from its egress; and there is no passage for the smallest boats, except along the eastern bank. "The waters dashing upon the stones make a noise like the roaring of the sea, so that people near them can scarce hear one another speak. I cannot express the awfulness with which one is struck at the sight of such astonishing scenes of nature, as appear round this place, and which I believe are not to be equalled in the known world. The pilots and sailors who navigate the lake, speak of it with much reverence, calling it the Holy Sea, and the mountains about it the Holy Mountains; and are highly displeased with any person who speaks of it with disrespect, or calls it a lake‖".

* Pennant, Arc. Zool. clxi.

† There are two other rivers of this name farther to the north, the largest joining the Yenesei in latitude 66°. But Mr. Pennant's Mangazea seems very doubtful, if it be not the village, or station called Tourouk Hansk.

‡ Bell, i. 307....315. ‖ Bell, i 316.

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SELINGA. The Selinga is a noble river, further to the south, which flows into the sea of Baikal*, after receiving the Orchon and other rivers, among which is the Tula, or Tola, the last stream that occurs till the wide desert be passed, which here divides the Russian empire from China proper. The territory adjacent to the Selinga and the Onon is the most interesting in Siberia, abounding with new, and truly Asiatic botany, and zoology.

LENA. The last of these large rivers is the Lena, which rises to the west of the sea of Baikal, running nearly parallel with the Angara, from which it is separated by a chain of hills. The Lena receives the Witim, and the Olekma from the Yablonnoy mountains; and, till near Yakutsk, pursues a course from the south-west to the north-east, a direction of considerable utility, as affording navigation to the remote regions. From Yakutsk the course is nearly due north; the channel being of great breadth and full of islands. The current of the Lena is generally gentle, and the bottom sandy. Travellers sail from the Lena into the Aldan, thence into the Maia, and the Yudoma, their route to Ochotsk, and Kamtchatka, being thus expedited.

Such are the most important rivers of Asiatic Russia, the Volga having been already described in the European division.

YAIK. The Yaik is a considerable stream which flows into the Caspian: the name was recently changed for that of Ural, on account of a daring insurrection of the tribes bordering on the Yaik†. The Terek also joins the Caspian on the west, and its chief consequence is derived from the fertility of its shores. The Kuban, or ancient Hypanis, runs in an opposite direction into the Euxine, the lower shores being plain, and destitute of wood, while near the sources are large forests.

Towards the other extremity of Asiatic Russia is the Anadir, which pervades the country of the Techuks. The long course of the Amur properly belongs to the Chinese dominions. The Argoon may be properly considered as the original Amur, while the Onon also called the Schilka, which is regarded as another source of that great river, may be considered as entirely Russian. The course of the Onon is about 500 miles; and it receives numerous streams from mountains on the north and south.‡

LAKES. In the north of Siberia, the most considerable lake is that of Piazinsko. In the south the sea of Baikal is fresh, but the extent far exceeding that of any other lake; it has been described among the inland seas of Asia. Between the river Ob and the Irtish is a large lake, about half the length of the Baikal, or 170 miles in length, divided by an island into two parts, called the lakes of Tchany and Soumi. In this quarter there are many smaller lakes, and others to the north of the Caspian, some of which are salt, particularly that of Bogdo, near the small mountain so called, and considered as proofs of the northern extension of that sea. The Altan Nor, or golden lake, sometimes corruptly called Elton, is a large saline lake on the east of Zaritzin.

* The Selinga might be regarded as the original Angara, or Yenesei, as the Ob, and Irtish, also pass through lakes.

† This river alone rises on the east of the Ural mountains, and afterwards pierces the granitic chain, and passes west. Dec. Russ. iv. 309.

‡ Dec R. vi. 363.

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The lake of Altyn, already mentioned in the account of the river Ob, is called by the Russians Teletzko, and is considerably elevated on the north side of the Altaian mountains; but from the best maps is not above forty miles in length, and twenty in breadth.

Mountains. The Uralian mountains have been already described in the account of European Russia.

Altai. The grandest chain in Siberia is that called the mountains of Altai, which, according to Pallas*, crossing the head of the Irtish, presents precipitous and snowy summits between that river and the sources of the Ob. Thence it winds by the springs of the Yenesei, and the south of the sea of Baikal, where it is called the mountains of Sayansk. Here the Altaian chain bends in a more northerly direction to the neighbourhood of Ochotsk, under the appellation of the Yablonnoy ridge, a name implying the mountains of Apples. Branches of inferior height pass to the eastern extremity of Asia under the latter name, or that of the Stanovoi mountains. The same chain in the north of Daouria is also called the Daourian mountains; and in this quarter a lower ridge passes due south towards China.

The Altaian chain, strictly so called, is by the Chinese denominated the Golden Ridge, perhaps from the rich metals which it contains. The stepp or desert of Issim, seems to divide and distinguish it from the mountains of Ural, which bend by the west of Orenburg: and there are salt lakes and other signs that the Caspian anciently extended in this direction.

Bogdo Alim. According to Dr. Pallas, Bogdo Tola, or Bogdo Alim, the Almighty Mountain, rears its pointed summits with striking sublimity, on the limit between the Soongarian and Mongolian deserts, while a chain extends to the lake of Altyn in the north-west, and another to the south-east, called Changay, and a snowy ridge, that of Massart, passes south, and is supposed to join those of Tibet†; and lastly, this parent mountain sends forth a rocky arm "called Allakoola, or the chequered ridge, and by the Tartars Ala Tau, connected with the Kirgusian Alginskoi Sirt." Between the last ridge, and the Massart, according to our author, rise the river Sirr, or Sihon, and the Talas. From Allakoola the Ili runs north into the lake of Palkati, or Balkash, and the Emil and Tshui flow in the same direction. From the mighty Bogdo itself rises the upper Irtish, which flows into the lake of Saizan: hence this great mountain must be situated about longitude 93°, latitude 44°. It is thus probable that the Altaian chain is connected with the southern by other ridges besides that of Massart, the deserts between Siberia, and Hindostan, and eastern Bucharia being alternate hills and plains, and extremely rocky‡.

* He begins with the Great Bogdo, which, as afterwards appears, is a central summit, like St. Gothard in the Alps. The western commencement seems to be about longitude 70°, east, from London. See Arrowsmith's map of Asia, Islenieff, &c.

† This Massart or Musart, may possibly be the Alak, (Alak Ula, or Alak Tag,) which joins the Belur Tag; but Mr. Tooke's translation from the German is far from clear, or applicable to modern maps. View of Russia, i. 145....175. See also Pallas *Sur la formation des Montagnes*, Paris, 1779, abridged in the sixth volume of the *Decouvertes Russes*.

‡ Pallas, Id.

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The western part of the Altaian chain is chiefly argillaceous, with granitic heights, containing schorl, but many parts are calcareous. Sinnaia-Sopka, or the Blue Mountain, the chief summit in the government of Kolyvan, does not exceed 3000 feet above the sea, and consists of coarse granite, with argillaceous schistus, and lime-stone at the bottom. Here a granitic ridge runs north towards the river Tsarish, abounding with ores of silver, copper, and zinc. Wacken, and siliceous schistus, with hornblende, and felspar, are also frequent in this part. The Schlangenberg is the richest in minerals, and near the river Alay to the north-west, branches of hills continue full of minerals, and often composed of porphyry, and granite, one of them on the north of the river Ouba rising to 5691 English feet above the bed of the stream. That space of the Altaian chain which runs between the Ob and the Yenesei has been little explored; but affords granite, porphyry, jasper, primitive and secondary lime-stone, with serpentine, petrosilex, slate, mountain crystal, carnelian, and calcedony: one of the highest summits is the Sabin, near the source of the Abakan. In general they are bare, the chief forests being in the bottoms near the rivers, and consisting of pines, firs, larches, cedars, birch, aspen, alder, and willow. That portion called the Sayansk mountains also consists chiefly of granite, and porphyry, with several mines of talc, or Muscovy glass. Branches extend on both sides of the sea of Baikal, likewise presenting mines of talc, and promontories of milk-white quartz, other summits are of fine grained granite, and sometimes there are masses of felspar, containing green schorl. Near Irkutsk, coal has been found; and there are salt springs in many places. Other products of this rich district shall be mentioned in the mineralogy.

Nershinsk. The mountains of Nershinsk, or Russian Daouria, send branches towards the Selinga, and the Amur. The chief heights are towards the sources of the Onon, and Ingoda, where there are precipitous summits of granite. A ridge passing south-west and north-east, to the south of Nershinsk, between the rivers Onon and Argoon, (the last of which is the real Amur,) is the most fertile in minerals of all Asiatic Russia. Among the products may be named granite, porphyry, jasper, calcedony, carnelian, onyx, petrosilex, large smoky topazes, beryl, or aqua marina, the real topaz, the jacinth, and beautiful schorls; with serpentine, asbestos, smectite, or indurated steatite, and alabaster, besides slate, and lime-stone. In this opulent district, are also salt lakes, and warm springs with vitriolic pyrites, ores of alum, native sulphur, and coals. The metals are zinc, iron, copper; and many mines of lead ore, containing silver and gold. The zoology and botany are alike curious and interesting*.

Stanovoi. The chain of Stanovoi, otherwise called the mountains of Ochotsk, is only a continuation of the mountains of Daouria. This part has been little explored; but produces granite, porphyry, calcedony, and carnelian, with rock crystal, sulphureous pyrites, and ores of alum, and it is said that coal is found in this

* The mountain Adunshello, celebrated for minerals, is in the southern extremity of Russian Daouria. Dec. Russ. v. 502. That volume, and the sixth, or last, may be consulted for an account of this country.

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district. A great singularity of this ridge is, that some entire branches consist of beautiful red and green jasper. That branch which pervades Kamchatka is little known, being covered with perpetual ice and snow, but it abounds with volcanos; and the isles which stretch towards Japan are frequently volcanic, nor is the latter kingdom yet free from the ravages of burning mountains.

This grand chain contains almost the whole mountains of Siberia, the remainder of the land on the west of the Yenesei being level; and to the east of that river are only several long ranges extending from the south to the north.

But in the south-west part of Asiatic Russia, some ranges deserve attention, as the lower part of the Uralian chain, which bends, as before observed, to the west above Orenburg. The supposed branch connecting the Uralian and Altaian chains is doubtful, being far to the south of the Russian boundary, and in a region little explored*.

The classical range of Caucasus forms a partial limit between the Russian empire, and those of Turkey and Persia. Between the Euxine and the Caspian, the Caucasian chain extends for about 400 British miles; and where the chief heights are distinctly marked about five miles in breadth, but in many places twenty or thirty. The summits are covered with eternal ice and snow; and consist as usual of granite, succeeded by slate and lime-stone. In ancient times they produced gold; and there are still vestiges of silver, lead, and copper; and it is supposed of lapis lazuli. The vales abound with excellent forest trees†.

Forests. Asiatic Russia is so abundant in forests, that particular names have not been assigned to so vast an extent. On the west of the government of Irkutsk an enormous, dark, and marshy forest of resinous trees extends to the river Kan‡. The northern and eastern parts of Siberia are bare of wood; the Norway fir not being found farther north than lat. 60°, while the silver fir does not exceed lat. 58°. In Europe, on the contrary, the Norway fir forms extensive forests in Lapmark, within the Arctic circle‖.

Stepps. After the forests may be considered the extensive level plains, an appearance of nature almost peculiar to Asia, and some parts of European Russia; but somewhat similar to the sandy deserts of Africa. The stepps are not so barren of vegetation, being mostly only sandy, with scattered patches of thin grass, and at wide

* Pallas mentions it in general terms as low and broken; and considers the Uralian ridge as bending south-west towards the Yaik, and the Caspian. See Independent Tatary.

† See the last Travels of Pallas, 1793...4, London, 1801, 2 vols. 4to. In vol i. p. 335, there is a curious description of the Caucasian chain, which may be compared with that of Gmelin, Dec. Russ. ii. iii. The Persian name of the chief summit, *Elburz*, (See D'Anville's map of Asia) the Doctor latinizes *Elburus*, and then puzzles himself concerning the etymon. This stupendous Alp, Pallas supposes equal in height to mont Blanc; it seems central, but nearer the Euxine than the Caspian. The Besh Tau is calcareous and collects vapours like other calcareous mountains. Id. iii. 70. The other chief heights are Ketshergan, Barmamut, Urdi, Kandshal.

Sherefedin styles the whole chain of Caucasus *Elburz*.

‡ Dec. Russ. vi. 133. ‖ Pennant, A. Z. p. clxxx.

intervals a stunted thicket. Between the mouths of the Don and Volga is a stepp which resembles the bed of a sea; with spots of salt and saline lakes, being entirely destitute of fresh water and wood*.

On the eastern side of the Volga begins an extensive stepp, formerly called that of the Kalmuks, from tribes who used to roam there, till they withdrew from the Russian dominions in 1771. To the south it is bounded by the Caspian sea, and the lake Aral; while to the north it may be regarded as connected with the stepp of Issim; and on the east may be considered as extending to the river Sarasu; the greater part not belonging to the Russian dominions, but being abandoned to the wandering Kirguses. This vast desert extends about 700 British miles from east to west; and including Issim, nearly as far from north to south; but on the north of the Caspian the breadth does not exceed 220. A ridge of sandy hills stretches from near the termination of the Uralian chain towards the Caspian; the rest is a prodigious sandy level, with sea shells and salt pools†. There are however, small districts capable of improvement, like the Oases, or isles in the midst of the African deserts. The north-eastern part of this stepp is connected with that of the Irtish; nay it is considered as extending even to the Ob, under the name of the Barabin stepp.

This stepp of Barabin, north-west of Omsk, is about 400 miles in length, and 300 in breadth, containing a few salt lakes, but in general of a good black soil, interspersed with forests of birch‡. That of Issim aspires but rarely to the same quality: and in both are found many tombs, inclosing the remains of pastoral chiefs, Tatar or Mongul.

The vast space between the Ob, and the Yenesei, from the north of Tomsk to the Arctic ocean, is regarded as one stepp, being a prodigious level with no appearance of a mountain, and scarcely of a hill. The same term is applied to the wider space between the Yenesei, and the Lena, between the Arctic ocean on the north, and a river Tunguskaǁ, latitude 65°; and to the parts beyond the Lena as far as the river Kolyma, or Covima.

Botany. When we consider the vast extent of the Asiatic provinces of the Russian empire, the scantiness of their population, and the few years that have as yet elapsed since the first attempt to investigate their natural productions, we shall feel rather surprised at what has been done, than disappointed, because no greater progress has been

* Tooke's View, i. 178.

† See in the last Travels of Pallas, i. 178, a curious account of a detached mountain in this stepp, towards the Volga, called Bogdo Ula. This hill near the saline lake of Bogdo, has no connexion, save in name, with the great mountains of Bogdo, in a remote quarter; the word only signifying *most mighty*, and Ula seems in the Kalmuk to imply a mountain, as in Mandshur, a river. This singular solitary hill is visible at the distance of twenty-five miles.

‡ The poverty of descriptive language is frequently to be regretted. A Russian stepp sometimes resembles a desert, at other times a savanna waving with luxuriant grass.

ǁ This vague name seems only to imply a river of the Tunguses. It is to be wished that the Academy of Sciences at Petersburg would revise the maps of Asiatic Russia, and give us distinct and pronounceable names. At present we may well wish for more knowledge, and fewer consonants.

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made in arranging, and describing their indigenous vegetables. The labours of Steller and Gmelin, and lastly of Pallas, under the munificent patronage of the empress Catharine, have disclosed to the view of science, the wilds of Siberia, and the deserts of Tatary, and though many extensive tracts continue wholly unexplored, yet from the ample specimen that has been surveyed, we may form a very probable conjecture concerning the botany of the remainder.

Russia in Asia, with regard to its flora, is divided by nature into two unequal portions: the smaller of these is bounded on the west by the Don, and Volga, on the east by the Uralian mountains, and on the south by the Caspian sea, and the Turkish, and Persian frontiers. The climate of this district is delicious, and the soil fertile, it slopes towards the south, and is protected from the northern blasts by lofty mountainous ridges; in its botany it greatly resembles the province of Taurida, of which an account has already been given: the cedar, the cypress, the savine, red juniper, beech, and oak, clothe the sides of the mountains; the almond, the peech, and the fig, abound in the warm recesses of the rocks; the quince, the apricot, the willow-leaved pear, and the vine, are of frequent occurrence in the thickets, and on the edges of the forests. The date plum, *(diospyros lotos,)* the jujube, and Christ's thorn, *(rhamnus zizyphus,* and *paliurus,)* are also natives of these provinces, and evince the mildness of the climate: the bogs are adorned by those exquisitively beautiful plants the rhododendron ponticum, and azalea pontica: the olive, the wild olive, *(elæagrus orientalis,)* the stately wide spreading eastern plane tree, *(platanus orientalis,)* the laurel, the bay, and laurustinus grow in abundance on the shores of the sea of Azof, and the Caspian: and the romantic vales of the Caucasus are perfumed and enlivened with the syringa, the jasmine, the lilac, and the Caucasian rose. From so flattering a specimen it is not to be doubted that future naturalists will gather an abundant harvest of useful and beautiful vegetables in these districts, which have hitherto been very inadequately noticed.

By far the larger part of the Russian dominions in Asia is the wide expanse of Siberia, sloping towards the north, and shut up on the south by the snowy summits of the Altaian, and other mountainous chains. As the winters are of great length and severity throughout the whole of this tract, none but the hardiest vegetables are found to inhabit it. The oak, and the hazle, which endure the rigours of a German winter without shrinking, cannot exist in a Siberian climate; dwarfish specimens indeed of each may be traced at the foot of the Altaian mountains, quite across Asia, as far as the banks of the river Amur, in Daouria, where, being screened from the northern blasts, they resume their natural size, but all that attempt to penetrate northward, become more diminutive as they advance, and soon entirely disappear. Even the common heath, and bog myrtle, *(myrica gale,)* which cover the lower parts of Lapland, venture but a very little way eastward of the Uralian mountains. We are not however hence to conclude, that the mighty rivers of Siberia pour their everlasting streams through a barren waste of perpetual snow; on the contrary they are bordered with inexhaustible forests of birch, of alder, of lime, of Tatarian maple, of black and white poplar, and aspen, besides millions of

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noble trees of the pine species, such as the fir, the Scotch pine, the larch, the stone pine, and yew-leaved fir. Nor during their short summer are they destitute of many beautiful plants, that lie concealed under the snow during the greater part of the year; several of the orchis tribe are natives of the Siberian forests, such as cypripedium bulbosum, satyrium epipogium, ophrys monorchis, and the splendid orchis cucullata: the lily of the valley, the black and white hellebore, the Siberian iris, and anemone, blending with the white feathery flower-spike of the spiræa trilobata, thalictroides, altaica, or Kamtchatica, form an assemblage of fragrance and beauty, unequalled by many more southern countries.

The Siberian plum, and crab *(prunus sibiricus*, and *pyrus baccata,)* the mountain ash, the daphne altaica, and Tatarian honeysuckle, *(lonicera tatarica,)* robinia frutescens, and altagana, Tatarian mulberry, *(morus tataricus,)* and the Daourian rose, form thickets of exquisite beauty, under shelter of which arise the white flowered peony, the gentiana glauca, algida, altaica, and several congenerous species, allium sibiricum, amaryllis Tatarica, asphodelus Tataricus, lilium Kamtchatense, the yellow saranne lily, whose roots are a favourite food with the Tatarian tribes, and a multitude of others, a bare list of whose names would be neither amusing nor instructive. The mosses and heaths are inhabited by several elegant shrubby plants, among which may be distinguished rhododendron chrysanthemum, Tataricum, and Kamtchaticum; andromeda taxifolia, and bryanthus: together with rubus chamæmorus, and others that are found in similar situations in the north of Europe. Only two plants more need be mentioned, the heracleum panaces, and sibiricum, from the dried stalks of which the natives procure a saccharine efflorescence, whence, by fermentation, and distillation, a coarse ardent spirit is made that enables them to enjoy the supreme beatitude of all the northern nations, drunkenness.

Siberia has hitherto been found to possess scarcely any peculiar genera of plants: and even all the species, of any considerable importance, are those trees which are common to it and the north of Europe.

Zoology. In the greater part of Asiatic Russia, the rein deer, which extends to the furthest east, performs the office of the horse, the cow, and the sheep; if we except Kamtchatka, where dogs, like the Pomeranian, are used for carriage. But the south may perhaps be considered as the native country of that noble animal the horse, being there found wild, as well as a species of the ass*. The terrible urus, or bison, is yet found in the Caucasian mountains; and the argali, or wild sheep, is hunted in Siberia. That singular small species of cattle called the musk bull and cow, with hair trailing on the ground, seems peculiar to the north of America.† The ibex, or rock goat, is frequent on the Caucasian precipices; and large stags occur in the mountains near the Baikal, with the musk animal, and wild boar. Wolves and foxes, and bears, of various names and descriptions, are also found. That kind of weazel called the sable affords a valuable traffic by its furs.

* Pennant, A. Z. i. 2. See also Dec. Russ. vi. 309.

† Id 8. It seems a small species of the yak of Tibet and Mongolia.

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Some kinds of hares appear, little known in other regions; and the castor, or beaver, is an inmate of the Yenesei. The walrus, or large kind of seal, once termed the sea horse, is no stranger to the Arctic shores; and the common seal extends even to Kamtchatka, while the manati, perhaps the mermaid of fable, inhabits the straits of Beering, and the isles between the continents. To enumerate the other animals of this extensive part of Asia, would be superfluous, as Siberia is so rich in zoology and botany, that, as Mr. Pennant observes, even the discovery of America has scarcely imparted a greater number of objects to the naturalist.

It will be more apposite to the present purpose to give a brief idea of the most interesting animals. The horses of the Monguls are of singular beauty, some being ribbed like the tyger, and others spotted like the leopard. The nostrils of the foals are commonly slitted, that they may inhale more air in the course. The three great nomadic nations of the centre of Asia, the Tatars, Monguls, and Mandshurs, have no aversion to horse-flesh, which is in their opinion superior to beef; but it is never eaten raw, as fabled, though they sometimes dry it in the sun and air, when it will keep for a long time, and is eaten without further preparation. The *adon*, or stud of a noble Mongul, may contain between three and four thousand horses and mares. The cattle are of a middling size, and pass the winter in the stepps or deserts. As these nations use the milk of mares, so they employ the cow for draught, a string being passed through a hole made in their nostril. Mr. Bell met a beautiful Tatar girl astride on a cow, attended by two male servants. The sheep are of the broad tailed kind; but the delicately waved lambskins are procured by the cruel practice of opening the womb of the mother.

The best sables are found near Yakutsk and Nershinsk; but those of Kamtchatka are the most numerous, and several stratagems are employed to catch or kill the animal, without any injury to the skin, which is sometimes worth ten pounds on the spot. The black foxes are also highly esteemed, one skin being sometimes sufficient to pay the tribute of a village*. The rock or ice fox, generally of a white colour, sometimes bluish, is found in great numbers in the eastern Archipelago. This animal rivals the ape in sly tricks and mischief. Other animals pursued for their skins are the marmot, the marten, the squirrel, the ermine, and others of inferior repute. The bear is destroyed by many ingenious methods. The Koriaks contrive a loop and bait hanging from a tree, by which he is suspended. In the southern mountains his usual path is watched, a rope is laid in it with a heavy block at one end, and a noose at the other. When thus entangled by the neck, he is either exhausted by dragging so great a weight, or attacking the block with fury, he throws it down some precipice, when it seldom fails to drag him to destruction. On the European side of the Uralian chain, where the peasants form bee-hives in tall trees, the bear is destroyed in his attempt to seize the honey, by a trap of boards suspended from a strong branch, and slightly attached to the entrance of the hive: the animal finding this platform conve-

* Tooke's View, iii. 43.

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nient for his purpose, undoes the slight fastening to get at his luscious repast, but is instantly conveyed to a great distance, and remains in the perpendicular of the branch, till he be discovered and shot by the contrivers. Nor must the beaver and the civet cat be omitted, the latter animal being found in the Altaian chain, and that supreme prominence of Asia which extends to Tibet, though perhaps sometimes confounded by travellers with the musk deer of Tibet; and even the civet cat rather resembles the fox. The elk also abounds in Siberia; the chamois is found on the Caucasian mountains; and several kinds of antelopes in Daouria. The wild boar grows to such a size that the tusks are sometimes said to weigh six hundred pounds, in which case it is no wonder that we hear of the tusks of elephants found in Siberia*. The wild horse, ass, and sheep, are minutely described by Pallas; but the various shades of difference between them and the domestic animals are too minute for this rapid survey.

MINERALOGY. The mineralogy of Siberia is equally fertile, and displays many singular and interesting objects. Peter the Great, who directed his attention to every object of utility, was the first who ordered these remote mines to be explored, which have since supplied great resources of national wealth and industry. For the example of Spain, adduced by theorists against this important branch, without which neither agriculture nor any of the arts could prosper, is an exception and not a rule; and only shews that mismanagement may ruin any advantage. As well might we declaim against agriculture, because the cultivation of rice is unhealthy. No propositions can be more plain than that England has derived her vast manufactures and commerce from her mines of coal, without which material they must long ago have terminated; that the iron of Sweden is the great resource of the state; and that the silver mines of Saxony have been the grand cause of the flourishing agriculture and general prosperity of that country. It is equally clear and simple, that if valuable mines were discovered in a barren country, they would not only employ many useful labourers, but the product might be exchanged to advantage for the necessaries or decorations of life, or expended in agricultural improvements. Hence the mines of Siberia have supplied great resources to Russia; while, merely by a miserable form of administration, those of Mexico and Peru have been ranked among the causes of the decline of Spain.

The chief gold mines of Siberia are those of Catherinburg or Ekatheringburg, on the east of the Uralian mountains, about latitude fifty-seven degrees, where an office for the management of the mines was instituted in 1719. The mines of various sorts extend to a considerable distance on the north and south of Catherinburg; and the foundries chiefly for copper and iron, are computed at 105. But the gold mines of Beresof, in this vicinity, were of little consequence till the reign of Elizabeth. The mines of Nershinsk, discovered in 1704, are principally of lead mixed with silver and gold; and those of Kolyvan, chiefly in the Schlangenberg, or mountain of serpents, so called by the German miners, began to be worked for the crown in 1748.

* Tooke iii. 79.

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The gold is sometimes found native, but generally mingled with various substances, (the *aurum larvatum* of Gmelin,) particularly silver, which constitutes the electrum of the ancients. The gold mines of Beresof are the chief in the empire; those of Kolyvan and Nershinsk being denominated silver mines, their produce of gold being of much smaller consequence*.

The silver is rarely native, but often mingled with gold, as already mentioned; and in the Daourian mountains with lead. That kind called horn silver is also found in the Schlangenberg; and what is called the glassy ore, and those kinds called *fragile* and *nitens* by Gmelin, as also the red arsenical ore, and the cupriferous sulphurated silver ore of Kirwan, mostly found in the Schlangenberg, and other mountains, branching north from those of Altai towards Kolyvan.

Besides the copper mines in the Uralian mountains there are also some in those of Altai. The most singular ore is the dendritic, somewhat resembling fern, of a pale colour, and perhaps containing silver. Malachite, or stalactitic copper, is found in the greatest perfection in a mine about thirty miles south of Catherinburg. What is called the Armenian stone is a blue malachite†. The red lead of Siberia is found in the mines of Beresof, on a micaceous sand-stone. This substance it is well known has disclosed a new metal called chrome.

But the iron mines of Russia are of the most solid and lasting importance, particularly those which supply the numerous foundries of the Uralian mountains‡. Yet Russia still imports quicksilver and zinc; and the semi-metals are rare.

Rock salt is chiefly found near the Ilek, not far from Orenburg. Coal is scarcely known; but sulphur, alum, sal ammoniac, vitriol, nitre, and natron, are found in abundance.

Nor must the gems of Siberia be omitted, of which there is a great variety, particularly in the mountain Adunshollo near the river Argoon, in the province of Nershinsk or Daouria. The diamond has never appeared except in Hindostan and Brazil, where it is always detached; as is the stone chiefly found in Ceylon, and called according to its colour, the ruby, sapphire, and oriental topaz. Common topazes are found in Adunshollo, in quadrangular prisms, as is also the jacinth. The emerald is unknown; the kind of jad called mother of emerald is a Siberian product: and beryl or aqua marina is found in Adunshollo, but in greater perfection in what are called the gem mines of Moursintsky near Catherinburg, along with the chrysolite. Red garnets abound near the sea of Baikal; and a yellowish white kind was disco-

* For Beresof, a few miles north-east of Catherinburg, see the *Decouvertes Russes*, iv. 162, &c., and the map in that volume. The gold mines are near the river Pyshma, which falls into the Tobol. That entire volume describes Ufa, the Bashkirs, and the Uralian chain, instead of being a *Voyage en Perse*, as the running title bears.

† Guthrie, Table of Gems. Bee, xv. p. 212. In the stepp near Orenburg is a singular mine of copper with petrified trees. Dec. R. iii. 147.

‡ Near mount Emor, or Nemir, not far from the river Yenesei, in the south of Siberia, Dr. Pallas discovered a large mass of native iron. See Dec. Russ. vi. 228, which places it near Krasnojarsk. In the same volume, p. 189, is a curious account of the rich iron mines near Rybna, south-east of that place, covered with mineralized trunks of trees.

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vered by Laxman. The opal is said to have been found in the Altaian mountains; probably only the semi-opal, the noble opal seeming peculiar to Hungary*. The ruby-coloured schorl was discovered in the Uralian mountains, by Mr. Herman, at Sarapoulsky, about seven miles from Moursintsky. It is called by Mr. Kirwan the rubellite, being of a delicately fibrous texture, and often, when polished, presenting the varying splendor of ruby-coloured velvet. The baikalite of the same author is of an olive green colour, and contains a sufficient quantity of magnesia to be arranged in the muriatic class, along with the peridot of the French, to which it seems nearly allied. The green felspar of Siberia is a beautiful stone, by the Russians carved into various ornaments. The Daourian mountains between the Onon and the Argoon also produce elegant onyx. The sieve-stone is an agatized fungites†. The beautiful stones called the hair of Venus and Thetis, being limpid rock crystals containing capillary schorl, red or green, are found near Catherinburg. The alliance stone consists of a greyish porphyry, united as if glued together, with transparent quartz.

The beautiful red and green jaspers of Siberia are from the most distant mountains, as already mentioned; and lapis lazuli is found near the Baikal. The Uralian chain also presents fine white marble; and in the numerous primitive ranges there are many varieties of granite and porphyry.

Mineral Waters. Mineral waters do not abound in Asiatic Russia. There is a fetid sulphureous spring near Sarepta, on the frontier of Europe and Asia, and several others in Siberia. The baths on the Terek, towards the Caucasus, are of a middle temperature; and there are others in the province of Nershinsk; among the Kalmuks to the south of the Altai, in the country sometimes styled Soongaria; and in the neighbourhood of the sea of Baikal. Vitriolic waters or chalybeates, the sour springs of the Germans, are found near Catherinburg, in the midst of the iron mines; nor are they unknown in Daouria. Springs impregnated with naphtha and petroleum occur near the Caspian and the Baikal.

But the chief mineral waters are those in Kamtchatka, as described by Lesseps. The hot baths of Natchikin, not far from a volcano in the south of that peninsula, seem not to have been traced to their source, but they fall in a rapid cascade about 300 feet above the baths, benevolently erected by Mr. Kasloff, for the benefit of the Kamtchadals, the stream being about a foot and a half deep, and six or seven feet wide. The water is extremely hot, and of a very penetrating nature, seeming to contain vitriolic and nitrous salts, with calcareous earth. On the west side of the gulf of Penjina is a hot spring which falls into the Tavatona, being of a great size and emitting clouds of smoke.

Natural Curiosities. The chief natural curiosities of Asiatic Russia have already been incidentally mentioned‡. The salt

* The Siberian opals are only opalline rock crystals. Guthrie, 54. A curious rock of agate and clay, running as it were into each other, occurs near the river Isett. Dec. R. iv. 371.

† Guthrie, ut supra.

‡ Near Kungur, on the European side of the Ural mountains, are remarkable caverns, said to extend for ten versts. Dec. R. iv. 407.

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lakes near the Caspian, and that sea itself, may be regarded as singular features of nature. The sublime scenes around the Baikal have been already described. Near the river Onon whole mountains are in summer on one side of a lilac colour, from the blossoms of the wild apricot; and on the other of a deep purple, from those of the Daourian rhododendron*. The Arctic levels of Siberia contrast with the thick forests on the south, which sometimes overhang the roads and rivers with a gloomy and dismal canopy. The numerous volcanos of Kamtchatka are also striking objects; but none of them appear to have been minutely explored, the severity of the climate being adverse to the curious traveller. Of most of them the smoke is perpetual, but they rarely throw out ashes or lava.

* Dec. R. v. 470.

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ISLANDS BELONGING

TO

ASIATIC RUSSIA.

Isles. THESE were formerly divided into the Aleutian, Andrenovian, and Kurilian groups, with the Fox isles, which extend to the promontory of Alaska in North America. The Aleutian isles, on the east of Kamtchatka, were multiplied by the early navigators as they saw them in different directions, but are now reduced to only two worth notice, Beering's isle, and Copper isle. The Andrenovian isles may be regarded as the same with the Fox islands, being the western part of the same range: if they must be distinguished, the Andrenovian, form a group of six or more isles, about 500 miles to the south-east of Beering's*. It appears that the Fox and Andrenovian isles are a kind of elongation of the American promontory of Alaska, and may more justly be reserved for the description of North America, late English navigators having dispelled many doubts concerning the real position of these isles. Beering's isle and Copper isle, are both uninhabited, and do not merit particular description†.

Kurilian. The Kurilian isles extend from the southern promontory of Kamtchatka towards the land of Jesso and Japan, being supposed to be about twenty in number, of which the largest are Poro Muschir and Mokanturu. Several of these isles are volcanic; and some contain forests of birch, alder, and pine. Most of them swarm with foxes of various colours. Even after the discoveries of La Perouse it is difficult to distinguish what particular isles in the south of this chain are implied by the Russian appellations. If Matmai be the land

* Coxe, Russian Disc. 25. but he says the north-east.

† The Andrenovian isles have almost vanished from English maps and charts, which only admit the Aleutian or Fox islands; and the Russian navigators must have erred grossly in their observations.

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of Jesso, Tshikota may be Staten Land and Kunassyr the Company's Land; but it seems more probable that this last is Ourop, and that Jesso is Etorpu. The discoveries are too imperfect to admit of decision; and it would even appear that the Russian navigators had, with their usual confusion, described the same islands under different names. The inhabitants of the Kirulian isles seem to be of similar origin with the Kamtchadals; and in the interior of some, is a people called hairy Kurilians, from what circumstance is not explained.

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CHINESE EMPIRE.

IN the last century the Chinese emperors, of the Mandshur race, extended this wide empire over many western countries, inhabited by wandering hords of Monguls, Mandshurs, and Tatars; and established such firm influence over Tibet, that the Chinese empire may now be considered as extending from those parts of the Pacific ocean called the Chinese and Japanic seas, to the rivers Sarasou and Sihon in the west*, a space of eighty-one degrees, which taking the medial latitude of thirty degrees, will amount to nearly 4,200 geographical, or 4,900 British miles. From north to south, this vast empire may be computed from the Uralian mountains, latitude fifty degrees, to the southern part of China, about latitude twenty-one degrees, being twenty-nine degrees of latitude, 1,740 geographical, or nearly 2,030 British miles.

DIVISIONS. This empire therefore consists of three principal divisions; that of China proper; the territory of the Mandshurs and Monguls, on the north and west; and lastly the singular and interesting region of Tibet or Tibbet. These countries are not only so wide and important, but are so radically different in the form of government, in the manners, and other circumstances, that it will be proper to describe each apart.

* This supposes that the great hord of Kirguses, who only pay homage to China, are included. But the mountains of Belur Tag, and the Palkati or Balkash lake, seem never to have been passed by the Chinese. About 200 British miles of medial length may, in this case, be subtracted.

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PART I.

CHINA PROPER.

CHAPTER I.

HISTORICAL GEOGRAPHY.

NAMES.—EXTENT.—BOUNDARIES.—ORIGINAL POPULATION.—PROGRESSIVE GEOGRAPHY.—HISTORICAL EPOCHS.—ANTIQUITIES.

NAMES. THIS distinguished region is by the natives styled Tchon-Koue, which signifies the centre of the earth, as they proudly regard other countries as mere skirts and appendages to their own. After the conquest of the northern part by the descendants of Zingis, it was styled Cathay, a name loudly celebrated in travels, poetry, and romance; while the southern part was known by the appellation of Mangi. The origin of the name of China, or Tsin, seems uncertain, but the connexion between this word and the Sinæ of the ancients appears imaginary, the country of the Sinæ being shewn by Gosselin to be much further to the west. The Mahometan travellers of the ninth century, published by Renaudot, (the authenticity of the work being now undoubted,) called this country Sin, but the Persians pronounce it Tchin*.

EXTENT. China proper extends from the great wall in the north, to the Chinese sea in the south, about 1140 geographical, or 1330 British miles. The breadth from the shores of the Pacific to the frontiers of Tibet may be computed at 814 geographical, or nearly 1030 British miles. In square miles the contents have been estimated at 1,297,999, and in acres at 830,719,360†.

BOUNDARIES. On the east and south, the boundaries are maritime, and to the north they are marked by the great wall, and the desert of Shamo; the confines with Tibet on the west seem to be chiefly indicated by an ideal line, though occasionally more strongly

* English translation. Remarks, p. 40. † Macartney's Emb. iii, Appen.

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marked by mountains and rivers: particularly, according to D'Anville the river Yalon, which falls into the Kian-ku, the country of Sifan lying between Tibet and China, on the south of the Eluts of Kokonor.

ORIGINAL POPULATION. The population of China seems wholly aboriginal, but the form of the features appears to imply intimate affinity with the Tatars, Monguls, and Mandshurs; yet the Chinese probably constitute a fourth grand division, not strictly derived from either of these barbaric races.

PROGRESSIVE GEOGRAPHY. The progressive geography of China, as known to the western nations, is not of ancient date, whether with D'Anville we suppose the Sinæ to have been in Cochin China, or with Gosselin place them in the western part of Siam. The most ancient external relation which we possess, is that of the two Mahometan travellers in the ninth century, who surprise us with accounts of barbarism and canibalism little to be expected: but the Arabs are so fond of fables, that implicit credit may be safely withheld from several passages. Yet these travellers impart high ideas concerning the Chinese empire, and mention Canfu, supposed to be Canton, as a city of great trade, while the emperors resided at Camdan, which seems to be the city also called Nankin, or the Southern Court, in contradistinction from Pekin or the Northern Court. This wide empire continued, however, obscure, to the inhabitants of Europe till the travels of Marco Polo appeared, in the thirteenth century. Yet the work of this traveller remained so unknown that Pope Pius II, in his description of Asia*, is contented with the more imperfect account by Nicola Conti, a Venetian traveller of his own time who visited Cathay†. Haitho the Armenian, who wrote his book on the Tatars about the year 1306, begins with an account of Cathay; and Oderic of Portenau described his voyage to China 1318‡. Our Sir John Mandeville visited China about 1340; and Pegoletti gave directions for the route in 1335‖. But in the following century there seems to have been a strange and unaccountable intermission of intercourse and research, if we except the travels of Nicola Conti abovementioned; and so perishable was the knowledge acquired as to have escaped even a learned pontiff. After this relapse of darkness, the rays of more genuine and authentic knowledge gradually emerged by the discovery of the Cape of Good Hope, and the subsequent enterprises of the Portuguese.

HISTORICAL EPOCHS. The Chinese history is said to commence, in a clear and constant narration, about 2,500 years before the birth of Christ. The founder of the monarchy is Fo-Hi; but the

* P. 18—28. Edit. Paris 1534. Pius wrote about 1450.

† Cathay had been before faintly known to Europeans, from the Travels of John de Plano Carpini 1245, and of Rubruquis, 1251. The account of the latter in particular is interesting, as he visited Cathay by the route of Karakum, the capital of the Mongul empire, placed by D'Anville on the Ongui Muren, but by Fischer in his history of Siberia on the east side of the river Orchon, about 150 British miles to the north-west.

‡ Forster's Disc. in the north, p. 147.

‖ Ibid. 150. The original is to be found in a work entitled *Della Decima, e delle altre gravezze Lisbona e Lucca*, 1776, 4to.

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regular history begins with Yao*. The dynasties or families who have successively held the throne, amount to twenty-two, from the first named Hia, to the present house of Tsingt. Yu, the first emperor of the house of Hia, is said to have written a book on agriculture, and to have encouraged canals for irrigation; and it is also asserted, that he divided the empire into nine provinces. The ancient revolutions of China would little interest the general reader. The dynasties, as usual, generally terminate in some weak or wicked prince, who is dethroned by an able subject. Sometimes the monarchy is divided into that of the south, which is esteemed the ruling and superior inheritance; and that of the north. The emperor Tai Tsong, who reigned in the seventh century after Christ, is regarded as one of the greatest princes who have filled the Chinese throne. The Mandshurs to the north of China repeatedly influenced the succession to the empire; but the Monguls under Zingis and his successors seized the five northern provinces. Hoaitsing, who began to reign A. D. 1627, was the last prince of the Chinese dynasties. Some unsuccessful wars against the Mandshurs had rendered this emperor melancholy and cruel; and insurrections arose, the most formidable being conducted by two chiefs Li and Tchang. The former besieged Pekin, which was surrendered by the general discontent, and the emperor, retiring to his garden, first slew his daughter with his sabre, and afterwards hanged himself on a tree, having only lived thirty-six years. The usurper seemed firmly seated on the throne, when a prince of the royal family invited the Mandshurs, who advanced under their king Tshong Te. The Mandshur monarch had scarcely entered China when he died; and his son of six years of age was declared emperor, the regency being entrusted to his uncle. This young prince, named Chun Tchig, was the first emperor of the present dynasty, and has been followed by four princes of the same Mandshur family.

Antiquities. Among the remains of Chinese antiquity may be mentioned the coins of the ancient dynasties, of which arranged cabinets are formed by the curious natives. Du Halde has published many of these ancient coins, and to his work the reader is referred. There are also several pagodas, or ornamented towers, sometimes erected in commemoration of great events; many temples, which are low buildings of a different construction from the pagodas; and some triumphal arches, which boast considerable antiquity.

But the chief remain of ancient art in China is that stupendous wall, extending across the northern boundary†. This work which is deservedly esteemed among the grandest labours of art, is conducted over the summits of high mountains, some of which rise to the height of 5225 feet, across the deepest vales, over wide rivers by means of arches; and in many parts is doubled or trebled to command important passes: and at the distance of almost every hundred yards is a tower or massy bastion. The extent is computed at 1500 miles: but in some parts of smaller danger it is not equally strong or complete, and towards the north-west only a rampart of earth. For the precise height and

* Du Halde, iii. 7. Haye, 1756. 4to.
† Ibid. i. 266. &c.
‡ Sir G. Staunton, ii. 360. 8vo.

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dimensions of this amazing fortification the reader is referred to the work already quoted, whence it appears that near Koopekoo the wall is twenty-five feet in height, and at the top about fifteen feet thick: some of the towers which are square, are forty-eight feet high, and about forty feet wide. The stone employed in the foundations, angles, &c. is a strong grey granite; but the greatest part consists of bluish bricks, and the mortar is remarkably pure and white.

Sir George Staunton considers the era of this great barrier as absolutely ascertained, and he asserts that it has existed for 2000 years. In this asseveration he seems to have followed Du Halde, who informs us that "this prodigious work was constructed 215 years before the birth of Christ, by the orders of the first emperor of the family of Tsin, to protect three large provinces from the irruptions of the Tatars*." But in the history of China, contained in his first volume, he ascribes this erection to the second emperor of the dynasty of Tsin, namely Chi Hoang Ti; and the date immediately preceding the narrative of this construction is the year 137 before the birth of Christ†. Hence, suspicions may well arise, not only concerning the epoch of this work, but even with regard to the purity and precision of the Chinese annals in general. Mr. Bell, who resided for some time in China, and whose travels are deservedly esteemed for the accuracy of their intelligence, assures us‡ that this wall was built about 600 years ago, (that is about the year 1160,) by one of the emperors, to prevent the frequent incursions of the Monguls, whose numerous cavalry used to ravage the provinces, and escape before an army could be assembled to oppose them. Renaudot observes, that no oriental geographer, above 300 years in antiquity, mentions this wall‖: and it is surprising that it should have escaped Marco Polo; who, supposing that he had entered China by a different route, can hardly be conceived, during his long residence in the north of China, and in the country of the Monguls, to have remained ignorant of so stupendous a work. Amidst these difficulties, perhaps it may be conjectured that similar modes of defence had been adopted in different ages; and that the ancient rude barrier having fallen into decay, was replaced, perhaps after the invasion of Zingis, by the present erection, which, even from the state of its preservation can scarcely aspire to much antiquity.

* Tome ii. p. 54.
† Tome i. 340.
‡ Travels, ii. 112. 8vo.
‖ Ut supra, 137.

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CHAPTER II.

POLITICAL GEOGRAPHY.

RELIGION.—ECCLESIASTIC GEOGRAPHY.—GOVERNMENT.—LAWS.—POPULATION.—COLONIES.—ARMY.—NAVY.—REVENUES.—POLITICAL IMPORTANCE AND RELATIONS.

RELIGION. ACCORDING to Du Halde, the ancient Chinese worshipped a supreme being, whom they styled Chang Ti, or Tien, which is said to imply the spirit which presides over the heavens; but in the opinion of others, it is only the visible firmament. They also worshipped subaltern spirits, who presided over kingdoms, provinces, cities, rivers, and mountains. Under this system which corresponds with what is called Schamanism, sacrifices were offered on the summits of hills. The sect of Tao See was founded on principles similar to those of Epicurus; but as the idea of death tended to disturb their boasted tranquillity, they invented a potion which was to confer imaginary immortality.

About A. D. 65, the sect of Fo was introduced into China from Hindostan. The name was derived from the idol Fo, (supposed to be the Boodh of Hindostan,) and the chief tenets are those of the Hindoos, among which is the Metempsychosis, or transition of souls from one animal to another. The priests are denominated Bonzes, and Fo is supposed to be gratified by the favour shewn to his servants. Many subordinate idols are admitted; but as the Jesuits found the followers of Fo the most adverse to Christianity, they have absurdly enough called them atheists.

Since the fifteenth century many Chinese literati have embraced a new system, which acknowledges an universal principle, under the name of Taiki, seeming to correspond with the soul of the world of some ancient philosophers. This opinion may indeed deserve the name of atheism; nor is it unusual to find ingenious reasoners so far disgusted with gross superstitions, as to fall into the opposite extreme of absurdity*. But such opinions are confined to very few; and the Chinese are so far from being atheists, that they are in the opposite extreme of polytheism, believing even in petty demons, who delight in minute acts of evil, or good. There is properly no order of priests,

* It must however be remembered that even these literati admit the existence of gods of various classes, emanated from the soul of the world. Hence they are in fact polytheists, who do not admit a supreme intelligent being.

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except the Bonzes of the sect of Fo; nor of course can any high priest aspire to the imperial power. The sect of Fo, and that of Lao Kian, which is the same with that of the Tai See, admit of monasteries. The noted festival of lantherns is, according to Osbek, celebrated in honour of the god of fire, to avert the danger of conflagration. The Chinese temples are always open; nor is there any subdivision of the mouth known in the country*,

GOVERNMENT. The government of China is well-known to be patriarchal. The emperor is indeed absolute; but the examples of tyranny are rare, as he is taught to regard his people as his children, and not as his slaves. The stability of the government, in all its essential, and even minute forms and customs, justly astonishes those who are the most versed in history. It arises from a circumstance unknown in any other government, the admission and practice of the principle asserted by lord Bacon that *knowledge is power*. For all the officers of government pass through a regular education, and a progress of rank, which are held indispensable. Of these officers, who have been called mandarins, or commanders, by the Portuguese, there are nine classes, from the judge of the village to the prime minister. The profession requiring a long and severe course of study, the practice of government remains, like that of medicine, unshaken by exterior events; and while the imperial throne is subject to accident and force, the remainder of the machine pursues its usual circle. In so vast an empire, with a computed population of more than 330,000,000, perhaps the stability of the state is incompatible with much freedom; yet the ideas of an European are shocked by the frequent use of the rod, a paternal punishment which would, in his eyes, appear the most degrading species of slavery. The soldiers, however, shew the greatest tenderness to the people; and every sentence of death must be signed by the emperor. It is impossible to fix any general criterion of human opinions, which vary according to minute, and sometimes invisible circumstances; and thus in China the prime minister may be chastened with rods, and acknowledge no mark of slavery in what he regards as a mere fatherly admonition.

The governors of the provinces have great and absolute power, yet rebellions are not unfrequent. Bribery is also an universal vice; and the Chinese government, like many others, is more fair in the theory than in the practice. Yet the amazing population, and the general ease and happiness of the people, evince that the practice of the government must be more beneficial than any yet known among mankind.

LAWS. The Chinese laws are ancient, but numerous; and edicts of the reigning dynasty have restrained the mandarins within stricter limits of duty.

POPULATION. The population of China has been a topic of considerable debate. Pauw, a bold and decisive asserter, and a declared enemy of the Jesuits, has attacked all their descriptions of China. He observes, from Du Halde, that when the missionaries proceeded through the empire, to prepare their maps, they found in the

* Pauw Recherches Philosophiques sur les Egyptiens et les Chinois. Tome ii. 217.

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greater part of the large governments, countries of more than twenty leagues, little peopled, almost uncultivated, and often so wild that they are quite uninhabitable. Pauw also mentions the abundance of tigers, and the existence of the Chinese savages in the extensive forests; and he supposes that the population is exaggerated when it is computed at 82,000,000*. In so wide an empire most of the features are on a large scale, nor can human industry overcome certain impediments of nature, as ridges of rocks, barren heaths, and extensive swamps, in certain positions; and in the north of China large forests are indispensably preserved for the sake of fuel. On a smaller scale such obstacles to universal population are found even in the most fertile countries, and Bagshot heath, with perhaps several tents of gypsies, occur near the capital of England. Civil wars, which have repeatedly raged in China, may also desolate parts of a country for a long period of time, while the inhabitants crowd to the cities and places of defence. As it would be absurd to suppose that all China consists of cultivable land, so it would be equally absurd to deny that the population has impressed every traveller with astonishment, and with ideas totally different from those of Pauw, who decided in his cabinet, in a spirit of enmity against his materials; and who seems to have forgotten that the want of cultivation in some districts, is balanced by that residing on the waters, millions of families passing their whole existence in boats on the numerous rivers, lakes, and canals. The recent English embassy was astonished at the excess of population; and Sir George Staunton has published the following table, from the information of a mandarin of high rank, who had every opportunity of exact knowledge.

TABLE OF THE POPULATION AND EXTENT OF CHINA PROPER, WITHIN THE GREAT WALL; TAKEN IN ROUND NUMBERS FROM THE STATEMENTS OF CHOW-LA-ZHIN.

PROVINCES.	POPULATION.	SQ. MILES	ACRES.
Pe-che-lee	38,000,000	58,949	37,727,360
Kiang-nan, two provinces	32,000,000	92,961	59,495,040
Kiang-See	19,000,000	72,176	46,192,640
Tche-kiang	21,000,000	39,150	25,056,000
Fo-chen	15,000,000	53,480	34,227,200
Hou-pe, Houn-an } Hou-quang	14,000,000 / 13,000,000	144,770	92,652,800
Hon-an	25,000,000	65,104	41,666,560
Shan-Tung	24,000,000	65,104	41,666,560†
Shan-see	27,000,000	55,268	35,371,520
Shen-see, Kan-sou	18,000,000 / 12,000,000	154,008	98,565,120
Se-chuen	27,000,000	166,800	106,752,000
Canton	21,000,000	79,456	50,851,840
Quang-see	10,000,000	78,250	50,080,000
Yu-nan	8,000,000	107,969	69,100,160
Kcei-cheou	9,000,000	64,554	41,314,560
	333,000,000	1,297,999	830,719,360

* Recherches, i. 78. † This identic repetition must be erroneous.

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How far this table may deserve implicit credit, may be doubted by those who know the difficulty of such researches, even in the most enlightened countries of Europe.

Colonies. As the Chinese laws permit no native to leave his country, there can be no colonies properly so called*.

Army. The army has been computed at 1,000,000 of infantry, and 800,000 cavalry; and the revenues at about thirty-six millions and a half of tahels, or ounces of silver, or about nine millions sterling; but as rice, and other grain, are also paid in kind it may be difficult to estimate the precise amount or relative value compared with European money†.

Political Importance and Relations. The political importance and relations of China may be said to be concentrated in itself, as no example is known of alliance with any other state. It has been supposed that one European ship would destroy the Chinese navy, and that 10,000 European troops might overrun the empire. Yet its very extent is an obstacle to foreign conquest, and perhaps not less than 100,000 soldiers would be necessary to maintain the quiet subjugation; so that any foreign yoke might prove of very short continuance. The recent conquest by the Mandshurs happened in consequence of the general detestation, excited against a sanguinary usurper; and the invaders were in the immediate proximity; while even a Russian army would find almost insurmountable difficulties on the route, and the conquest, like that by the descendants of Zingis, would infallibly prove of short duration. The English, in Hindostan, nearly approach to the Chinese territories; but there can hardly arise any rational ground of dissention in opposition to the interests of British commerce. Were the Chinese government persuaded of the utility of external relations, an alliance with the English might be adopted, as a protection against maritime outrage, while the Russian power might be divided by connexions with the sovereigns of Persia.

* Yet the number of Chinese at Batavia, and other situations in the Oriental Archipelago, many of whom pass as traders to and from their country, shews that these laws are little regarded.

† Sir George Staunton, iii. 390, estimates the revenue at 200,000,000 of ounces of silver, which he says equals 66,000,000*l.* sterling; but valuing the ounce of silver at five shillings, the amount is 50,000,000*l.*

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CHAPTER III.

CIVIL GEOGRAPHY.

MANNERS AND CUSTOMS.—LANGUAGE.—LITERATURE.—EDUCATION.—UNIVERSITIES.—CITIES AND TOWNS.—EDIFICES.—ROADS.—INLAND NAVIGATION.—MANUFACTURES AND COMMERCE.

MANNERS AND CUSTOMS. THE Chinese being a people in the highest state of civilization, their manners and customs might require a long description, especially as they are extremely different from those of other nations. The limits of this work will only admit a few hints. In visiting the sea-ports of China, foreigners have commonly been impressed with the idea of fraud and dishonesty; but it is to be supposed that these bad qualities are not so apparent where there are fewer temptations. The indolence of the upper classes, who are even fed by their servants, and the nastiness of the lower, who eat almost every kind of animal, in whatever way it may have died, are also striking defects, though the latter may be occasioned by dire necessity in so populous a country. To the same cause may be imputed the exposition of infants, a custom which long prevailed in Scandinavia, and was not unknown in ancient Greece and Rome, but which always yielded to the progress of civilization. On the other hand the character of the Chinese is mild and tranquil, and universal affability is very rarely interrupted by the slightest tincture of harshness, or passion. These qualities may be partly imputed to the vigilant eye of the patriarchal government, and partly to strict abstinence from heating foods, and intoxicating liquors. The general drink is tea, of which a large vessel is prepared in the morning, for the occasional use of the family during the day. Marriages are conducted solely by the will of the parents, and polygamy is allowed. The bride is purchased by a present to her parents, and is never seen by her husband till after the ceremony. Divorce is permitted in case of adultery, antipathy of temper, a claim urged by Milton; and even in case of just ground of jealousy, of gross indiscretion, and disobedience to the husband, of barrenness, and contagious diseases. Yet divorces are rare among the higher classes, whose plurality of wives enables them to punish by neglect. It is not permitted to bury in cities or towns, and the sepulchres are commonly on barren hills and mountains, where there is no chance that agriculture will disturb the bones of the dead. The colour of mourning is white, that personal neglect or forgetfulness may appear

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in its squalor; and it ought on solemn occasions to continue for three years, but seldom exceeds twenty-seven months*. The walls of the houses are sometimes of brick, or of hardened clay, but more commonly of wood; and they generally consist only of a ground floor, though in those of merchants there be sometimes a second story, which forms the warehouse. The houses are ornamented with columns, and open galleries, but the articles of furniture are few. The dress is long, with large sleeves, and a flowing girdle of silk. The shirt and drawers vary according to the seasons; and in winter the use of furs is general, from the skin of the sheep to that of the ermine. The head is covered with a small hat, in the form of a funnel, but this varies among the superior classes, whose rank is distinguished by a large bead on the top, diversified in colour according to the quality. The dress is in general simple and uniform; and on the audience given to lord Macartney, that of the emperor was only distinguished by one large pearl in his bonnet. The chief amusements of the Chinese seem to be dramatic exhibitions, fire works, in which they excel all other nations, and feats of deception and dexterity.

Language. The language is esteemed the most singular on the face of the globe. Almost every syllable constitutes a word, and there are scarcely 1500 distinct sounds; yet in the written language there are at least 80,000 characters, or different forms of letters, so that every sound may have about fifty senses†. The leading characters are denominated keys, which are not of difficult acquisition. The language seems originally to have been hieroglyphical; but afterwards the sound alone was considered. Abstract terms are expressed, as usual, by relative ideas; thus *virtue*, which in latin implies strength, among the Chinese signifies filial piety; the early prevalence of knowledge in China excluding mere strength from any meritorious claim.

Education. The schools of education are numerous, but the children of the poor are chiefly taught to follow the business of their fathers. In a Chinese treatise of education, published by Du Halde, the following are recommended as the chief topics. 1. The six virtues, namely, prudence, piety, wisdom, equity, fidelity, concord. 2. The six laudable actions, to wit, obedience to parents, love to brothers, harmony with relations, affection for neighbours, sincerity with friends, and mercy with regard to the poor and unhappy. 3. The six essential points of knowledge, that of religious rites, music, archery, horsemanship, writing, and accompts. Such a plan is certainly more useful than the acquisition of dead languages.

Cities and Towns. The chief cities of China are Pekin and Nankin, or the northern and southern courts, the former being the Cambalu, or city of the Chan, in writings of the middle ages, the capital of Cathay, as Nankin was of Mangi. Pekin occupies a large space of ground; but the streets are wide, and the houses seldom exceed one story. The length of what is called the Tatar city is about four miles, and the suburbs are considerable‡. The principal part, or that called the Tatar city, is so denominated, because it was re-edified in the thirteenth century, under the dynasty of the Tatars, or rather the Mon-

*Du Halde, ii 146. † Staunton, iii. 418. ‡ Staunton, ii. 297.

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guls*. By the best information, which the recent embassy could procure, the population was computed at 3,000,000. The houses indeed are neither large nor numerous; but it is common to find three generations, with all their wives and children, under one roof, as they eat in common, and one room contains many beds. The neatness of the houses, and various repletion of the shops, delight the eye of the visitor. At Pekin the grand examinations take place, which confer the highest degree in literature, or in other words the chief offices in government. Excessive wealth, or poverty, seem equally unknown, as there is no right of promigeniture, and no hereditary dignity: and there are properly but three classes of men in China, men of letters, among whom the mandarins are selected; cultivators of the ground; and mechanics, including merchants†. The walls of this capital are of considerable strength and thickness; and the nine gates of no inelegant architecture. Strict police and vigilance are observed, and the streets are crowded with passengers and carriages. The grandest edifice is the imperial palace, which consists of many picturesque buildings, dispersed over a wide and greatly diversified space of ground, so as to present the appearance of enchantment.

Nankin. Nankin, which was the residence of the court till the fifteenth century, is a yet more extensive city than Pekin, and is reputed the largest in the empire. The walls are said to be about seventeen British miles in circumference. The chief edifices are the gates with a few temples; and a celebrated tower clothed with porcelain, about 200 feet in height. Such towers were styled pagodas by the Portuguese, who supposed them to be temples; but they seem to have been chiefly erected as memorials, or as ornaments, like the Grecian and Roman columns.

Canton. To the European reader one of the most interesting cities is Canton, which is said to contain a million and a half of inhabitants; numerous families residing in barks on the river. The European factories, with their national flags, are no small ornaments to this city. The chief export is that of tea, of which it is said that about 13,000,000 of pounds weight are consumed by Great-Britain, and her dependencies, and about 5,000,000 by the rest of Europe. The imports from England, chiefly woolens, with lead, tin, furs, and other articles, are supposed to exceed a million; and the exports a million and a half, besides the trade between China and our possessions in Hindostan. Other nations carry to Canton the value of about 200,000*l.* and return with articles to the value of about 600,000*l.* So that the balance in favour of China may be computed at a million sterling.

Other Cities. The other large cities of China are almost innumerable; and many of the villages are of a surprising size. Among the cities may be mentioned Singan, the capital of the province of Shensi, Kayfong, that of Honan, Tayyuen of Shansi, Tsinan of Shanton, Chingtu of Sechwun, Vuchang of Huquang, Nanchang of Kyangsi, Hangchew of Chekyang, Fuchew of Fokyen, Quegling of Quangsi,

* So Staunton; but Du Halde, i. 135, says, it is so called because the houses were allotted to the Mandshurs, in the beginning of the present dynasty.

† Staunton, ii. 329. But the military must be regarded as a fourth class.

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Queyyang of Queychew, and Yunnan of the western province so called, with Shinyan, the chief city of the northern province of Lyautong, and Kinkitao of Corea, a dependency of China. Of these cities Singan is by some esteemed equal to Pekin. In general the plan and fortifications are similar; and a Mandshur garrison is carefully maintained.

EDIFICES. The most striking and peculiar edifices in China are the pagodas, or towers already mentioned, which sometimes rise to the height of nine stories, of more than twenty feet each. The temples, on the contrary, are commonly low buildings, always open to the devout worshippers of polytheism. The whole style of Chinese architecture is well known to be singular, and is displayed with the greatest splendor in the imperial palace at Pekin, which is described at great length by Du Halde, and Sir George Staunton. The late emperor chiefly resided in the summer at the palace of Zheho, about 120 miles north-east from Pekin, in the country of the Mandshurs, not far beyond the great wall, where the various edifices of the palace are, as usual, situated in a pleasure ground of wide extent. The architecture is elegant, and highly ornamented, but the paintings of mean execution, as the Chinese are strangers to perspective, and do not admit of shade, which they regard as a blemish.

ROADS. The roads are generally kept in excellent order, with convenient bridges. That near the capital is thus described by Sir George Staunton. "This road forms a magnificent avenue to Pekin, for persons and commodities bound for that capital, from the east and from the south. It is perfectly level; the centre to the width of about twenty feet, is paved with flags of granite, brought from a considerable distance, and of a size from six to sixteen feet in length, and about four feet broad. On each side of this granite pavement, is a road unpaved, wide enough for carriages to cross upon it. The road was bordered in many places with trees, particularly willows of a very uncommon girth. The travellers soon passed over a marble bridge, of which the construction appeared equal to the material. The perfection of such a fabric may be considered to consist in its being made as like as possible to that of which it supplies the want: and the present bridge seems to answer that description; for it is very wide, and substantially built, over a rivulet not subject to inundations, and is little elevated above the level of the roads which it connects together."

INLAND NAVIGATION. The canals of China have long excited the envy and wonder of other nations. As the two grand rivers of Hoan-ho and Kian-ku bend their course from west to east, the chief object was to intersect the empire from north to south; which was in great measure accomplished by the imperial canal. This wonderful work, which in utility and labour exceeds the enormous wall, is said to have been begun in the tenth century of the christian æra, 30,000 men having been employed for forty-three years in its completion.

"This great work differs much from the canals of Europe, which are generally protracted in straight lines, within narrow bounds, and without a current, whereas that of China is winding often in its course, of unequal and sometimes of considerable width, and its waters are seldom stagnant.

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"The ground which intervened between the bed of this artificial river, and that of the Eu-ho, was cut down to the depth of about thirty feet, in order to permit the waters of the former to flow with a gentle current into the latter. Their descent is afterwards checked occasionally, by flood-gates thrown across the canal, wherever they were judged to be necessary, which was seldom the case, so near as within a mile of each other, the current of the water being slow in most places. This canal has no locks like those of Europe. The flood-gates are simple in their construction, easily managed, and kept in repair at a trifling expense. They consist merely of a few planks, let down separately one upon another, by grooves cut into the sides of the two solid abutments, or piers of stone, that project one from each bank, leaving a space in the middle just wide enough to admit a passage for the largest vessels employed upon the canal. As few parts of it are entirely level, the use of these flood-gates, assisted by others cut through its banks, is to regulate the quantity of water in the canal. Some skill is required to be exerted, in order to direct the barges through them without accident. For this purpose an immense oar projects from the bow of the vessel, by which one of the crew conducts her with the greatest nicety. Men are also stationed on each pier with fenders, made of skins stuffed with hair, to prevent the effect of the vessels striking immediately against the stone, in their quick passage through the gates.

"Light bridges of timber are thrown across those piers, which are easily withdrawn whenever vessels are about to pass underneath. The flood-gates are only opened at certain stated hours, when all the vessels collected near them in the interval pass through them, on paying a small toll, appropriated to the purpose of keeping in repair the flood-gates, and banks of the canal. The loss of water occasioned by the opening of the flood-gate is not very considerable, the fall at each, seldom being many inches; and which is soon supplied by streams conducted into the canal from the adjacent country on both sides. The fall is, however, sometimes above a foot or two, when the distance between the flood-gates is considerable, or the current rapid. The canal was traced often in the beds of ancient rivers, which it resembled in the irregularity of its depth, the sinuosity of its course, and the breadth of its surface, where not narrowed by a flood-gate. Wherever the circumstances of the adjacent country admitted the water in the canal to be maintained in a proper quantity, without any material deficiency, or excess, by means of sluices managed in its sides, for the purpose of influx, or discharge, as was the case farther to the southward, few flood-gates were necessary to be constructed; nor were there any where met above half a dozen in a day*".

The same author describes this canal as beginning at Lin-sin-choo, where it joins the river Eu-ho, and extending to Han-choo-foo, in an irregular line of about 500 miles. Where it joins the Hoan-ho, or Yellow river, it is about three-quarters of a mile in breadth. From the subsequent narrative, it appears that Du Halde, Le Comte, and other French authors, have been misled when they supposed that the imperial canal extends from Canton to Pekin, while half of the course is

* Sir G. Staunton. iii. 204.

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supplied by river navigation, and smaller canals, and it is sometimes interrupted by mountainous districts*. In the south the river Kan-kian, which runs from south-west to north-east, supplies a very considerable part of the navigation.

To enumerate the other canals of China would be infinite, as there is a large canal in every province, with branches leading to most of the towns and villages.

Manufactures and Commerce. The manufactures of China are so multifarious, as to embrace almost every article of industry. The most noted manufacture is that of porcelain; and is followed in trade by those of silk, cotton, paper, &c. The porcelain of China has been celebrated from remote ages, and is chiefly prepared from a pure white clay called kaolin: while the petunsi is understood to be a decayed felspar. Some writers add soap rock, and gypsum†. The excellent imitations which have appeared in various countries of Europe, more elegent in the form and painting, have considerably reduced the value of the Chinese manufactory.

The internal commerce of China is immense, but the external trade is unimportant, considering the vastness of the empire. A scanty intercourse exists with Russia, and Japan; but the chief export is that of tea, which is sent to England to the value of about one million yearly.

* Phillips, p. 8. seq. gives a very erroneous idea of the length of this canal.
† Staunton, iii. 390.

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CHAPTER IV.

NATURAL GEOGRAPHY.

CLIMATE AND SEASONS.—FACE OF THE COUNTRY.—SOIL AND AGRICULTURE.—RIVERS.—LAKES.—MOUNTAINS.—FORESTS.—BOTANY.—ZOOLOGY.—MINERALOGY.—MINERAL WATERS.—NATURAL CURIOSITIES.

CLIMATE AND SEASONS. THE European intercourse with China being chiefly confined to the southern part of the empire, the climate is generally considered as hot, whereas the northern part of this extensive country is liable to all the rigours of the European winter*. At Pekin such is the effect of the great range of Tatarian, or rather Mandshurian mountains covered with perpetual snow, that the average degree of the thermometer is under twenty degrees in the night, during the winter months; and even in the day it is considerably below the freezing point. The inhabitants, unaccustomed to domestic fires, increase their clothing; but in large buildings there are stoves provided with fossil coal, which is found in abundance in the vicinity. In an empire so wide, such a diversity of climate and seasons must occur, that no general description can suffice. Perhaps every vegetable production, adapted to use or luxury, might be reared within the Chinese boundaries.

FACE OF THE COUNTRY. The face of the country is infinitely diversified; and though in a general view it be flat and fertile, and intersected with numerous large rivers and canals, yet there are chains of granitic mountains, and other districts of a wild and savage nature. Cultivation has however considerably reduced the number and extent of such features, whence the natives seek to diversify the sameness of improvement, by introducing them in miniature into their gardens. In general the appearance of the country is rendered singularly picturesque by the peculiar style of the buildings, and uncommon form of the trees and plants.

SOIL AND AGRICULTURE. The soil is infinitely various, and agriculture, by the account of all travellers, carried to the utmost degree of perfection. The extent of the internal commerce has had the same effect as if wealth had been procured from foreign climes; and the advantage has been laudably used to the improvement of the country. It is well known that the emperor himself sets an annual example of the veneration due to agriculture, the first and most important province of human industry. Sir George Staunton thus expresses his idea of Chinese agriculture†:

* Staunton, iii. 157. † iii. 306.

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" Where the face of the hill or mountain is not nearly perpendicular to the level surface of the earth, the slope is converted into a number of terraces, one above another, each of which is supported by mounds of stone. By this management it is not uncommon to see the whole face of a mountain completely cultivated to the summit. These stages are not confined to the culture of any particular vegetable. Pulse, grain, yams, sweet potatos, onions, carrots, turnips, and a variety of other culinary plants, are produced upon them. A reservoir is sunk in the top of the mountain. The rain water collected in it, is conveyed by channels successively to the different terraces, placed upon the mountain's sides. In spots too rugged, barren, steep, or high, for raising other plants, the camellia sesanqua, and divers firs, particularly the larch, are cultivated with success.

" The collection of manure is an object of so much attention with the Chinese, that a prodigious number of old men and women, as well as of children, incapable of much other labour, are constantly employed about the streets, public roads, banks of canals, and rivers, with baskets tied before them, and holding in their hands small wooden rakes, to pick up the dung of animals, and offals of any kind, that may answer the purpose of manure; but above all others, except the dung of fowls, the Chinese farmers, like the Romans, according to the testimony of Columella, prefer soil or the matter collected by nightmen in London, in the vicinity of which it is in fact applied to the same uses; as has already been alluded to in describing a visit to the Lowang peasant in a former part of this work. This manure is mixed sparingly with a portion of stiff loamy earth, and formed into cakes, dried afterwards in the sun. In this state it sometimes becomes an object of commerce, and is sold to farmers, who never employ it in a compact state. Their first care is to construct large cisterns for containing, besides those cakes and dung of every kind, all sorts of vegetable matter, as leaves, or roots, or stems of plants, mud from the canals, and offals of animals, even to the shavings collected by the barbers. With all these they mix as much animal water as can be collected, or of common water as will dilute the whole; and in this state, generally in the act of putrid fermentation, they apply it to the ploughed or broken earth. In various parts of a farm, and near paths and roads, large earthen vessels are buried to the edge in the ground, for the accommodation of the labourer or passenger, who may have occasion to use them. In small retiring houses, built also upon the brink of roads, and in the neighbourhood of villages, reservoirs are constructed of compact materials to prevent the absorption of whatever they receive, and straw is carefully thrown over the surface from time to time, to stop the evaporation. And such a value is set upon the principal ingredient for manure, that the oldest and most helpless persons are not deemed wholly useless to the family by which they are supported.

" The quantity of manure collected by all these means, must however be still inadequate to that of the cultured ground, which bears so vast a proportion to the whole surface of the country. It is reserved therefore, in the first instance, for the purpose of procuring a quick succession of culinary vegetables, and for forcing the production of flowers and fruit. Among the vegetables raised most generally, and

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in the greatest quantities, is a species or variety of brassica, called by the Chinese pe-tsai, or white herb, which is of a delicate taste, somewhat resembling what is called cross-lettuce, and is much relished in China by foreigners as well as natives. Whole acres of it are planted every where in the vicinity of populous cities; and it was sometimes difficult to pass on a morning through the crowds of wheel-barrows, and hand-carts, loaded with this plant, going into the gates of Pekin and Han-choo-foo. It seems to thrive best in the northern provinces, where it is salted for winter consumption, and in that state is often carried to the southward and exchanged for rice. That grain, and that herb, together with a relish of garlick or of onions, in room of animal food, and followed by a little infusion of coarse tea, serve often as a meal for a Chinese peasant or mechanic. The Chinese husbandman always steeps the seeds he intends to sow in liquid manure, until they swell, and germination begins to appear; which experience, he says, has taught him to have the effect of hastening the growth of plants, as well as of defending them against the insects hidden in the ground in which the seeds were sown. Perhaps this method has preserved the Chinese turnips from the fly, that is often fatal to their growth elsewhere. To the roots of plants and fruit trees the Chinese farmer applies liquid manure likewise, as contributing much towards forwarding their growth and vigour. The Roman author, already quoted in this chapter, relates that a similar practice had much improved the apples and vines of Italy.

"The great object of Chinese agriculture, the production of grain is generally obtained with little manure, and without letting the land lie fallow. It is true that there are plants, such as species of the epidendron, that is capable of vegetating in air alone. Others, as bulbous roots and succulent plants, which thrive best in sand, and a great variety in water; but, with those exceptions, virgin or vegetable earth is the proper bed of vegetation: and whatever may be the theory of the agricultural art, its practice certainly requires that there should be given to the soil such a texture and consistency as may be found most suitable to the plants intended to be raised. Such a texture may in most cases be obtained by the application of manures, being generally a mixture of animal and vegetable substances, that have undergone the putrefactive fermentation. A mucilage is thus formed, which, besides any other changes it may produce, is found to give a new consistence to the soil with which it comes in contact, to render clay more friable, and to give tenacity to light and sandy soils; as well as to maintain in both a proper degree of temperature and humidity".

This ingenious and well informed author proceeds to applaud the industry of the Chinese, in mingling their soil, and in the irrigation of land, which last they consider as a leading principle of agricultural skill. The plough is simple, and managed by one person, having but one handle, and no coulter, which is deemed unnecessary, as there is no lea ground, and consequently no turf to cut through, in China. The husbandry is singularly neat, and not a weed is to be seen.

Rivers. In describing the rivers of this great empire, two are well known to deserve particular attention, namely, the Hoan-ho, and the Kian-ku. The sources of the first, also called the Yellow river,

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from the quantity of mud which it devolves, are two lakes, situated amongst the mountains of that part of Tatary known by the name of Kokonor. They lie about the thirty-fifth degree of north latitude, and nineteen degrees of longitude, to the westward of Pekin, being, according to Arrowsmith's map of Asia, about ninety-seven degrees east from Greenwich*. This prodigious river is extremely winding and devious in its course, pursuing a north-east direction to about the forty-second degree of north latitude, and after running due east, it suddenly bends south to a latitude nearly parallel to its source, and pursues an easterly direction till it be lost in the Yellow sea. Its comparative course may be estimated at about 1800 British miles; or, according to the late embassy, 2,150. At about seventy miles from the sea, where it is crossed by the imperial canal, the breadth is little more than a mile, and the depth only about nine or ten feet; but the velocity equals about seven or eight miles in the hour†.

The Kian-ku rises in the vicinity of the sources of the Hoan-ho; but according to the received accounts and maps about 200 miles further to the west, and winds nearly as far to the south as the Hoan-ho does to the north. After washing the walls of Nankin, it enters the sea about 100 miles to the south of the Hoan-ho. The Kian-ku is known by various names through its long progress; and near its source is called by the Eluts Porticho or Petchou; the course is about equal to that of the former, these two rivers being considered as the longest on the face of the globe: they certainly equal, if they do not exceed, the famous river of the Amazons in South-America, and the majestic course of the Ganges does not extend half the length. In the late embassy the length of the Kian-ku is estimated at about 2,200 miles; and it is observed that these two great Chinese rivers, taking their source from the same mountains, and passing almost close to each other, in a particular spot, afterwards separate from each other to the distance of fifteen degrees of latitude, or about 1,050 British miles; and finally discharge themselves into the same sea, comprehending a track of land of about 1,000 miles in length, which they greatly contribute to fertilize.

To these grand rivers many important streams are tributary; but it would be infinite to enumerate the various waters which enrich and adorn this wide empire. The Eu-ho in the north; the Hoan-ho, the Lo-kiang, the Kan-kiang, the Ou-kiang, and others, in the centre; and the Hon-kiang, Pe-kiang, and others in the south, are chiefly noted by geographers, who are more inclined to fill their maps with names of towns and villages, than to discriminate the lasting features of nature.

LAKES. Nor is China destitute of noble and extensive lakes. Du Halde informs us, that the lake of Tong-tint-hou, in the province of Hou-quang, is more than eighty leagues in circumference. That of Hong-si-hou is partly in the province of Kiang-nan, and partly in an adjoining division of the empire. That of Poyang-hou, in the province of Kiang-si, is about thirty leagues in circumference, and is formed by the confluence of four rivers as large as the Loire: this last is of dan-

* Staunton, iii. 232; but the *starry fountains* are more to the west. See the atlas and description by Du Halde.

† Ib. iii. 234.

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gerous navigation. There is also a considerable lake, not far to the south of Nankin, called Tailou; and the map of D'Anville indicates a number of smaller lakes, chiefly in the eastern and central parts of China. Some of these lakes are described in the late embassy, as those of Paoyng, Tai-hou, and See-hoo. Upon a lake near the Imperial canal were observed thousands of small boats and rafts, constructed for a singular species of fishery. "On each boat, or raft, are ten or a dozen birds, which, at a signal from the owner, plunge into the water; and it is astonishing to see the enormous size of fish with which they return, grasped within their bills. They appeared to be so well trained that it did not require either ring or cord about their throats, to prevent them from swallowing any portion of their prey, except what the master was pleased to return to them, for encouragement and food. The boat used by these fishermen is of a remarkable light make, and is often carried to the lake, together with the fishing-birds, by the men who are there to be supported by it".

The large lake of Wee-chaung-hoo is also described in the embassy as a singular scene of nature, and of industry; this lake, with several others, appear to be omitted in the maps. That of Tai-hoo is surrounded by a chain of picturesque hills, and was full of pleasure boats, many of them rowed by a single female*.

Mountains. Concerning the extensive ranges of Chinese mountains, no general and accurate information has yet been given. Du Halde's ample description of the Chinese empire only informs us that some abound with mines of silver, others produce marble and crystal, while some supply medicinal herbs. But the ancients give ideas at once general and precise, while modern information is often confused from its minuteness, and the consideration of the grand features of nature is sacrificed to that of the petty exertions of man. From the same author we learn, that the provinces of Yunnan, Koeitcheou, Setchuen, and Fokien, are so mountainous as greatly to impede their cultivation; and that of Tchekiang has dreadful mountains on the west. In the province of Kiang-nan there is a district full of high mountains, which also abound in the provinces of Chensi and of Shansi. This imperfect information is little enlarged by the account published of the late embassy†; and perhaps Mr. Arrowsmith's recent map of Asia contains as authentic information as can be procured concerning the course and extent of the Chinese mountains. It hence appears that a considerable branch extends from those in central Asia, running south to the river Hoan-ho. Two grand ranges running east and west, intersect the centre of the empire, seemingly continuations of the enormous chains of Tibet. In the southern part of China the principal ridges appear to run from north to south.

The Chinese chains of mountains, some of which are supposed to rival the Appenines and Pyrenees, may be seven or eight in number; but so imperfect is still our knowledge of this empire, that no general appellations have been conferred, and scarcely is the name of one Chi-

* Staunton, iii. 229

† The Abbé Grosier's account is equally imperfect, and only filled with idle tales.

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nese mountain known to geography. D'Anville amidst all his care, and exuberance of information from French jesuits who had long resided in China, lays down the mountains on his usual plan in all his maps, as confused spots scattered over the whole country, so that in this grand department he may be said to yield even to the meanest of his predecessors.

Forests. Such is the cultivation diffused throughout China, that few forests remain except in the mountainous districts. Near the royal palaces there are indeed forests of great extent, but they rather bear the appearance of art than of nature.

Botany. The number of Europeans who have been allowed to visit the interior of China is so small, and those to whom this privilege has been granted having objects of more urgency to attend to than the indigenous plants of this vast empire, we are as yet only in possession of some scattered fragments of the Chinese flora. The neighbourhood of Canton has been surveyed by Osbeck, and a meagre list of plants is to be found in Staunton's account of the English embassy there. These are almost the only authentic sources that have been hitherto opened, and are calculated rather to excite than to satisfy the botanical inquirer.

Among the trees and larger shrubs, we find particularized the thuya orientalis, an elegant evergreen; the laurus camphora, *camphor tree*, whose wood makes an excellent and durable timber, and from the roots of which that fragrant substance camphor is procured by distillation; euphorbia neriifolia, *oleander-leaved spurge*, a large shrub used as a material for hedges; hibiscus ficulneus and mutabilis, the latter of which is a tree of considerable size, and eminently conspicuous for its splendid blossoms; rhamnus lineatus; lawsonia inermis; croton sebiferum, *tallow tree*, from the fruit of which a green wax is procured that is manufactured into candles; ficus indicus, the spreading *banyan tree*, growing among loose rocks; salix Babylonica, *weeping willow*; fagus castanea, *Spanish chesnut*; and pinus larix, the *larch*. Of the fruit trees the following are the principal: citrus medica and Chinensis, *China orange*; musa paradisiaca, *plantain tree*; tamarindus indicus, *tamarind*; morus albus and papyriferus, the *white* and *paper mulberry* tree, the former of these is principally cultivated for the use of its leaves, on which the silk worms are fed; and of the bark of the latter, paper, and a kind of cloth, are made. Nor must the two species of the *tea tree*, thea viridis and bohea, be left unnoticed, whose leaves constitute so large a proportion of the European trade with China.

Several beautiful plants grow wild in the hedges, such as gomphrena globosa, *globe amaranth*; impatiens balsamina, *balsam*; and that elegant climber ipomea quamoclit; bœckea frutescens, brionia cordifolia, and hedysarum pulchellum.

Of those plants that grow in China by the river sides, or in marshy places, the most worthy of notice are the smilax china and sarsaparilla; maranta galanga, *galangale*, used in medicine; nymphæa nelumbo, a species of *water lily*, the roots of which are esculent; arundo bambos, *bamboo*, the largest plant of the grass kind, the stem of which, from their lightness and strength, are applied to a multitude of useful purposes; mimosa Chinensis, aralia Chinensis, cacalia incana, and aster

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indicus, *China-aster*, a common ornament of our gardens; the splendid and capricious ixia, and the elegant azalea-indica. Among ruins and in shady places are urtica nivea, *snowy nettle*; canna indica, *Indian reed*; cassica sophora, convallaria sinensis, and hedysarum gangeticum.

Besides the multitude of vegetables that are cultivated as articles of human food, and which are probably natives of India, Japan, and the neighbouring islands, the following are found in a truly wild state in China, viz. three species of dolichos, *kidney bean*; D. sinensis, *calvances*; D. soya, from the beans of which the true Indian soy is made; and D. culcratus: dioscorea alata, *yam*; cucurbita sinensis, *China gourd*; nicotiana tabacum, *tobacco*; and convolvulus battatas, *sweet potato*.

The rocks and mountainous parts, as far as they have been examined, abound with beautiful plants, among which may be particularized ixora coccinea, a most elegant shrub, with large scarlet blossoms; nauclea orientalis; convolvulus hirtus; *hairy bindweed*, with yellow flowers; monarda sinensis; daphne indica; and lobelia zeylanica.

A few others which have been introduced into our gardens remain to be mentioned: celosia cristata; mirabilis odorata; crotalaria juncea; rosa indica, *China rose*; dianthus sinensis, *China pink*; and barleria cristata.

Zoology. The zoology of China may be conceived to be extremely various and interesting, as many even of the common animals differ so much in their appearance from those found in other countries. Such is the opulence of materials in every department of zoology, that the reader must be referred to Osbeck, and other sedulous inquirers into natural history, for satisfaction on a subject which might extend to several volumes. There are few animals which are not known in the other regions of the east, but an attempt to point out the diversities in the species would exceed the limits of the present design. Du Halde asserts, that the lion is not found among the Chinese animals; but there are tigers, buffaloes, wild boars, bears, rhinoceroses, camels, deer, &c*. Some of the camels are not higher than horses, with two hunches, while that kind called the dromedary, with one hunch, is found in the northern parts of Africa, and other comparatively temperate regions, being more numerous than the camel. The musk deer is another singular animal of China as well as Tibet: and Du Halde has enumerated several fabulous animals, like the griffins and dragons of classical fable, among which is a large ape, which is said to imitate all the actions of man, and a kind of tiger resembling a horse covered with scales. Among the birds many are remarkable for their beautiful forms and colours, in which they are rivalled by a variety of moths and butterflies.

Mineralogy. Among the metals lead and tin seem to be the rarest. China produces mines of gold, silver, iron, white copper, common copper, mercury, lazulite or lapis lazuli, jasper, rock crystal, loadstone, granite, porphyry, and various marbles. According to some, rubies are found in China; but others assert that they come from Ava.

In many of the northern provinces fossil coal is found in abundance. According to Du Halde it forms veins in the rocks, which would con-

* ii. 184. i. 32.

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stitute an uncommon circumstance in the history of that mineral. The common people generally use it, pounded with water, and dried in the form of cakes. Du Halde says, that the use of it was dangerous from its suffocating smell, except a vessel of water were placed near the stove. Pekin is supplied from high mountains in the vicinity, and the mines seem inexhaustible, though the coal be in general use.

Mines of silver are abundant, but little worked, from an apprehension of impeding the progress of agriculture; an idle fear, for silver might as well be exported as tea. The gold is chiefly derived from the sands of certain mountains, situated in the western part of the provinces of Sechuen and Yunnan, towards the frontiers of Tibet. That precious metal is seldom used, except by the gilders; the emperor alone having solid vessels of gold.

Tutenag, which is a native mixture of zinc and iron, seems to be a peculiar product of China; and in the province of Houquang there was a mine which yielded many hundred weight in the course of a few days.

The copper of Yunnan, and other provinces, supplies the small coin current through the empire: but there is a singular copper of a white colour, called by the Chinese *petong*, which deserves particular notice. This metal must not be confounded with the tutenag, an error not unfrequent. It is indeed sometimes mingled with tutenag to render it softer, according to Du Halde; but there is a better method in mingling it with one fifth part of silver.

The Chinese musical stone is a kind of sonorous black marble. Lazulite is found in Yunnan, Sechuen, and Shansi. Several of the Chinese idols and small vessels are formed of smectite, or indurated steatites, of a delicate white or yellow, with a greasy appearance. The mountains in the north and west of China no doubt furnish a number of other mineral objects, which may have escaped notice, amidst the imperfect knowledge which Europeans have yet attained of this extensive empire.

Mineral Waters. Mineral waters must be numerous in so wide a country, and the Chinese rarely neglect any natural advantage; but travellers do not seem to have recorded any springs especially memorable.

Natural Curiosities. The natural curiosities of China are in the like predicament.

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CHINESE ISLANDS.

Isles. NUMEROUS isles are scattered along the southern and eastern coast of China, the largest being those of Taiwan, also called Formosa, and that of Hainan. Formosa is a recent acquisition of the Chinese in the latter end of the seventeenth century, the natives being by the Chinese accounts little better than savages. It is divided from north to south by mountains, and the chief Chinese possessions are in the western part. Du Halde has given a short history of Formosa, which may be consulted by the curious reader, who on this occasion may perhaps recollect the singular forgeries of the pretended Psalmanazar. In 1782, Formosa was visited by a terrible hurricane, and the sea rose to such a height as to pass over a great part of the island; but the Chinese emperor caused the damages to be repaired with paternal care*.

The southern part of Hainan is mountainous, but the northern more level and productive of rice. In the centre there are mines of gold; and on the shores are found small blue fishes, which the Chinese esteem more than those which we call gold and silver fish; but they only survive a few days, when confined to a small quantity of water.

The isles of Leoo-keoo, between Formosa and Japan, constitute a little civilized kingdom tributary to China. These isles are said to be thirty-six in number, but very inconsiderable, except the chief, which is properly and peculiarly called Leoo-keoo, and by the Chinese accounts is 440 *lys* in length, probably that *ly* or Chinese stadium of which 250 constitute a degree, so that the length will be about 125 British miles, nearly twice the extent which is assigned in recent maps. The capital, called Kintching, is said by Grosier to be on the south-east side of the isle, while D'Anville and others place it on the southwest†. When our author affirms that these isles constitute a powerful and extensive

* Grosier's General Description of China, Eng. Tr. i. 225.

† This may be a mistake of Grosier, or his English translator, for the work is far from being infallible. Yet upon the whole it is the best description of China which has appeared, and it is only to be wished that the compiler had quoted his authorities.

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empire, a smile must be excited by the exaggeration; but the natives seem to rival the Hindoos in chronology, as their royal dynasties are said to have continued for eighteen thousand years. These isles were *discovered* by the Chinese in the seventh century, while the Phenicians had discovered Britain at least four centuries before Christ; but it was not till the fourteenth century that they became tributary to China. The emperor Kang-hi, about A. D. 1720, ordered a temple to be erected to Confucius in the chief island, with a literary college. The language is said to differ from that of China or Japan; but the civilization seems to have proceeded from the latter country, as the Japanese characters are commonly used. The people are mild, affable, gay, and temperate; and the chief products are sulphur, copper, tin, with shells, and mother of pearl.

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PART II.

CHINESE TATARY.

CHAPTER I.

HISTORICAL GEOGRAPHY.

NAMES.—EXTENT.—BOUNDARIES.—ORIGINAL POPULATION.—PROGRESSIVE GEOGRAPHY.—HISTORICAL EPOCHS.—ANTIQUITIES.

NAMES. THE vulgar name of Tartary, or more properly Tatary, was originally extended over the vast regions lying between Tibet, China, and the Arctic ocean; and from the Black Sea in the west, to the utmost bounds of north eastern discovery in Asia. As more precise knowledge has arisen, the northern part has acquired the name of Siberia, while the southern, in some maps of recent date, is known by the appellations of western and eastern Tartary. Yet even in this part, which might more properly be styled Central Asia, the Tatars, properly so denominated are few: and the most numerous tribes being Monguls in the west, and Mandshurs in the east. But the various nations subject to the Chinese have not been discriminated with the accuracy which Pallas and other travellers have employed in illustrating the origin of those subject to Russia.

It is however sufficiently clear, from the accounts of Du Halde and Pallas, that the Oelets, or Eluts, are the same people with the Kalmuks, who possess the regions of Gete and Little Bucharia, with the parts on the north and east of Turfan formerly held by the Ugurs or Eygurs, a Finnish nation who had wandered from the north. The Kalkas are also Monguls, as are the Ortoos between the Chinese wall and the great river Hoan-ho. It is equally ascertained that the inhabitants of the province of Nershinsk, or Russian Daouria, are Tonguses, who are a chief branch of the Mandshurs*. And the Tagours, or Daourians, subject to China on the eastern side of the great range called Siolki, are also Mandshurs, who extend to the eastern ocean, while in Siberia, the Tonguses spread as far west as the river Yenesei.

* Dec. Russ. tome vi. 253, &c.

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Upon the whole this extensive region might more properly be called Mongolia, as the greater number of tribes are Monguls; or the western part might be styled Tatary, the middle Mongolia, and the eastern Mandshuria. The two latter are the objects of the present description; as that of Independent Tatary will be found after the account of Persia, with which it has (as now limited) in all ages been connected.

EXTENT. This wide and interesting portion of Asia, which has repeatedly sent forth its swarms to deluge the arts and civilization of Europe, extends from the 72d° of longitude east from Greenwich, to the 145th°, a space of not less than 73° of longitude, which at the medial latitude of 45° will yield about 3100 geographical miles. The breadth from the northern frontier of Tibet to the Russian confines is about 18°, or 1080 geographical miles. The boundary towards Russia has been already described. From the treaty published by Du Halde* it appears that the river Kerbetchi, being the nearest to the river Chorna (called by the natives Ourouon), and which discharges itself into the great river Sagalien Oula, was the Chinese definition of the boundary between the empires; to which were added the long chain of mountains above the source of the river Kerbetchi, and the river Ergone or Argoon. The eastern boundary is the sea, while the southern extends along the great Chinese wall, and the northern limits of Tibet. The western boundary is supplied by the celebrated mountains of Belur Tag or the Cloudy Mountains, which divide the Chinese empire from Balk, and the Greater Bucharia; while the range on the west of the lake Palkati separates the Kalmuks, subject to China, from the Kirguses of Independent Tatary.

ORIGINAL POPULATION. The original population of central Asia, appears to have been indigenal, so far as the most ancient records extend. Part of the west was held by the Scythæ of antiquity, seemingly a Gothic race, who were subdued or expelled by the Tatars or Huns from the east, pressed on the other side by the Monguls. Beyond the latter were the Mandshurs, who, though inferior to the Monguls in power, yet retain their ancient possessions, and in the seventeenth century conquered China. At present, the chief inhabitants are the Mandshurs of the eastern provinces; with the tribes denominated Kalkas, Eluts, and Kalmuks, who are Monguls as already mentioned. The information concerning central Asia, is indeed very lame and defective; and though the late Russian travellers afford a few hints, yet the jealousy of the Chinese, and other causes, have contributed to prolong our ignorance concerning this interesting region.

PROGRESSIVE GEOGRAPHY. Though Ptolemy have laid down with some degree of accuracy, the country of the Seres or Little Bucharia, the progressive geography of central Asia may be said to commence with the travels of Marco Polo, in the end of the thirteenth century. Yet prior to this epoch the victories of Zingis, and his immediate successors, having excited the attention of Europe, the friar Plano Carpini travelled a considerable way into Tatary, and found the emperor not far from the frontiers of China. This envoy was followed by Rubruquis,

* iv. 212.

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whose real name seems to have been Ruysbroeck, and who appears to have visited the countries on the banks of the Onon. But the travels of Polo being more extensive, and more minutely described, he is justly regarded as the father of Tataric geography, and his description of the countries to the north of Tibet, including Tangut*, and other names which have vanished from modern geography, is not a little interesting. Yet a dissertation, aided by the most recent researches, would be required to reduce his geography to any precision.

The more recent accounts, among which may be mentioned the travels of Gerbillon, published by Du Halde, and those of Bell, with some hints of Pallas, may be said to embrace but small portions of this vast territory†. The imperfect state of knowledge concerning this country may be imagined, when even D'Anville has been obliged to have recourse to Marco Polo!

Historical Epochs. The chief historical epochs of this part of Asia may perhaps be more certainly traced in the Chinese annals, than in any other documents. The first appearance of the Huns or Tatars may be observed in the pages of Roman history. The annals of the Monguls, the most important nation, faintly illuminate the pages of Abulgasi, whence it would appear, that prior to Zingis, there was only one celebrated chan named Oguz, who seems to have flourished about the 130th year of the Christian era. The reigns of Zingis and Timur are sufficiently known in general history; but the divisions of their conquests, and the dissentions of their successors, have now almost annihilated the power of the Monguls, who being partly subject to China, and partly to Russia, it is scarcely conceivable that they can again disturb the peace of their neighbours.

Antiquities. Few antiquities remain to illustrate the power of the Monguls. Karacum, or Caracorum, also called Helin by the Chinese, the capital city of the Mongolian power, is now so far obliterated, that geographers dispute concerning its situation, D'Anville placing it, with a confession of uncertainty, on the river Ongin, while others assign the banks of the Orchon, about 150 British miles to the north-west. It is probable, that when this region shall be more fully explored by travellers, several tombs, temples, and other remains of antiquity, may be discovered.

* This appears to have been the country immediately to the north-west of the Chinese province of Shensi. See Forster's Hist. Voy. and Dis. in the North, p. 107.

† The notes to the *Histoire Genealogique des Tatars*, Leyde, 1726, 8vo. must not be forgotten amidst the few materials.

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CHAPTER II.

POLITICAL GEOGRAPHY.

RELIGION.—GOVERNMENT.—LAWS.—POPULATION.—ARMY.—POLITICAL IMPORTANCE AND RELATIONS.

RELIGION. THE religion most universally diffused in this part of Asia, is what has been called Shamanism, or the belief in a supreme author of nature, who governs the universe by the agency of numerous inferior spirits of great power. The Kalkas were accustomed to acknowledge a living Lama, or great spirit embodied; a form of superstition which will be better illustrated in the account of Tibet*.

GOVERNMENT. The government was formerly monarchical, with a strong mixture of aristocracy, and even of democracy. At present, it is conducted by princes, who pay homage to the Chinese empire, and receive Chinese titles of honour; but many of the ancient forms are yet retained. Though writing be not unknown among the Monguls, yet the laws appear to be chiefly traditional.

POPULATION. Of the population of these regions it is difficult to form any precise ideas. As the numerous tribes subject to Russia, are found, under splendid appellations, to present but a slender number of individuals, not exceeding two or three millions, it may perhaps be reasonable to infer, that amidst the wide deserts and barren mountains of central Asia, there do not inhabit above six millions.

A proper enumeration would indeed depend upon authentic inquiries into the state of the various tribes. The country of the Mandshurs is, by the Chinese, divided into three great governments. 1. That of Chinyang, comprising Leaodong, surrounded, in part, by a strong barrier of wood. The chief town is Chinyang, also called Mugden by the Mandshurs, still a considerable place, with a mausoleum of Kunchi, regarded as the conqueror of China, and the founder of the reigning family†. 2. The government of Kiren-Oula, which extends far to the north-east, where there are many forests and deserts on both sides of the great river Sagalien. Kirem, the capital, stands on the river Songari, which falls into the Sagalien or Amur, and was the residence of the Mandshur general, who acted as viceroy‡. 3. The government of Tsitchicar, so called, from a town recently founded on the Nonni Oula, where a Chinese garrison is stationed. The Russians call this province Daouria, from the tribe Tagouri, who possess a great part of this

* A curious account of the religion of the Monguls may be found in the sixth volume of the *Decouvertes Russes*. The *gellungs* or priests are the *gylongs* of Tibet, and the other features seem to correspond.

† La Croix, ii. 221. ‡ Du Halde, iv. 7.

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territory. The western boundary is the river Argoon, the frontier between Russia and China is also marked in the treaty by another river, the Kerbetchi, which seems to have vanished from recent maps. These provinces having been the seat of the Mandshur monarchy before the conquest of China, have since that event remained subject to their ancient sovereigns.

In this division may also be named Corea, which has for many centuries acknowledged the authority of China, and which boasts a considerable population. The language, according to Du Halde, differs from the Chinese, and from what he calls the Tataric, probably the Mandshur. That writer may be consulted for a more particular account of this extensive province; the geography of which still remains rather doubtful.

To the west are various tribes of Monguls; as the Kalkas; those around Koko Nor, or the Blue Lake, who are also called Oelets, Eluts, or Kalmuks, the terms only implying particular Mongul branches. The Eluts have been greatly reduced by two destructive wars against the Chinese, in 1720 and 1757; and their contäisch, or great chan, has disappeared. Their country may be considered under three divisions. 1. That part called Gete even to the time of Timur, which some regard as the country of the ancient Massagetæ, towards the lakes of Palkati, Balkash or Tengis, and Zaizan. The contaisch used chiefly to reside at Harcas or Erga, on the river Ili, which flows from the south-east, into the lake of Balkash. 2. Little Bucharia, so called to distinguish it from the Greater Bucharia, which is subject to the Usbecks, a Tataric nation; but the people of Little Bucharia are an industrious race of distinct origin, who are little mingled with their Kalmuk or Mongul lords. 3. The countries of Turfan to the north of the lake called Lok Nor, and that of Chamil or Hami to the east, regions little known, and surrounded with wide deserts*. Upon the whole, it may perhaps be found, that the Mandshurs are the most populous race; and that the Monguls, though diffused through a vast territory, can hardly boast the name of a nation. The Kirguses, or Tatars proper of the west, are confined to a small and unfertile district; and may more properly be considered as belonging to Independent Tatary.

Army. It is probable that this part of the Chinese empire might muster a large but ineffectual army; and amidst modern tactics and weapons little needs be apprehended from a new deluge of Mongul barbarians. If the various tribes of Mandshurs, Monguls, and Tatars were to coalese under some chief of great abilities, the political importance and relations of central Asia might resume their former fame; but their interests are now so various and discordant, that while the empires of Russia and China exist, they can only be regarded as connected with the policy of these powerful states.

* See remarks on the geography of these countries in the account of Great Bucharia. Turfan is commonly included in Little Bucharia; and Gete is the Soongaria of the Russians. *Soongaria* means the left hand, as those tribes adoring towards the east, call Tibet *Barontala*, or the region on the right.

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CHAPTER III.

CIVIL GEOGRAPHY.

MANNERS AND CUSTOMS.—LANGUAGE.—LITERATURE.—CITIES AND TOWNS.—MANUFACTURES AND COMMERCE.

MANNERS AND CUSTOMS. THE manners and customs of the Monguls have been already briefly described in the account of Asiatic Russia. Du Halde observes that these wandering nations "appear always contented, and free from care; of a happy temper, and a gay humour, always disposed to laughter, never thoughtful, never melancholy." And he adds "what reason can they have to be so? they have neither neighbours to please, nor enemies to fear, nor great people to court; and are free from difficult business, or constrained occupation, delighting themselves only in the chace, in fishing, and various exercises in which they are very skilful*."

The Mandshurs, who here deserve particular notice, are little distinguishable in their manners from the Monguls. By the account of the Jesuits, they have no temples, nor idols, but worship a supreme being, whom they style emperor of heaven. But probably their real creed is Shamanism, or a kind of rational polytheism, not unknown to the Jews, who admitted, as appears from Daniel, great angels or spirits, as protectors of empires. Of the three grand nations perhaps the Mandshurs may be regarded as approaching the nearest to civilization, especially since their conquest of China: and their advancement must have been greater, since the late emperor ordered the best Chinese books to be translated into the Mandshur language. Yet the Chinese retain great antipathy against their conquerors, whom they despise as a filthy race of savages. The Mandshurs are of a more robust form, with countenances less expressive; and the feet of their women are not disfigured like those of the Chinese. The head dress of this sex consists of natural and artificial flowers. The general raiment is the same as the Chinese†.

LANGUAGE. The three languages of the Mandshurs, Monguls, and Tatars, radically differ from each other. M. Langles published at Paris, about ten years ago, a prospectus of an intended dictionary of the Mandshur language, in which he pronounces it the most learned and perfect of the Tataric idioms, not excepting that of Tibet, though not written till the beginning of the seventeenth century, when the monarch charged some literati to design letters after those of the Monguls, nearly resembling those of the Ugurs, which, to the eye of M. Langles seemed to spring from the Stranghelo, or ancient Syriac.

* Du Halde, iv. 32. † Staunton, ii. 358.

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Yet from the account of this author, it appears, that the Mandshur grammar presents 1500 groups of syllables, which he has analysed into twenty-nine letters; of which the greater part have three forms, as they happen to appear, in the beginning, middle, or end of a word.

LITERATURE. Of the native literature of the Mandshurs, little is known, except that a code of laws was drawn up by the order of one of the monarchs, prior, it is believed, to the conquest of China. The imported literature, by the translation of Chinese works, must be considerable.

CITIES AND TOWNS. This extensive portion of Asia contains several cities and towns, generally constructed of wood, and of little antiquity or duration. These shall be briefly mentioned, passing from the west towards the east.

In Little Bucharia appear the cities of Cashgar, Yarkand, Kotun, and Karia. Cashgar was formerly a remarkable town, giving name to a considerable kingdom, the limits of which nearly corresponded with Little Bucharia*. This town though fallen from its ancient splendor, still retains some commerce. Yarkand stands on a river of the same name, which, after a long easterly course, falls into the lake of Lopt.

Turfan, the capital of a detached principality, is a considerable town, which used to be frequented by the merchants passing from Persia to China. Hami, Chami, or according to others Chamil, gives name to a small district, in the immense desert of Cobi, and according to Du Halde, is a small but populous place‡. Some towns occur further to the south, but seemingly are only usual stations for tents, the Monguls preferring the nomadic life.

The ancient city of Karakum has vanished, as already mentioned: but to the east of the great desert, and near the frontiers of China, several Mongul town appear in the maps. Coucou seems to be the Couchan of Du Halde, a small town seated on a hill near a river which falls into the Hoan-ho. The others are yet more inconsiderable.

The country of the Mandshurs contains many villages and cities, as Hotun Sagalian Oula, so called from its position on that river, in the country of the Tahouria, modernized Daouria; likewise Tsitchikar, already mentioned, with Merguen, Petouna, Kirin Oula, and Ningouta. On the north and east of the great river Amur scarcely the vestige of a village appears. Of those here enumerated Petouna or Pedne, was, in the time of Du Halde, chiefly inhabited by Mandshur soldiers and exiles, under the command of a lieutenant-general. Ningouta was also

* Histoire des Tatars, 388.

† According to Petis de la Croix, in his learned notes on Shereseddin, Yarkand in only another name for Cashgar; but this opinion seems confuted by the letter of the Chinese general. See Independent Tatary. Kotun, whence perhaps cotton derives its name, is also called Chateen, and was a flourishing city in the last century. Bentink, 193.

‡ Grosier, in his description of China, i. 336, gives an interesting account of Hami, which is about half a league in circumference, with two beautiful gates. It stands in a fertile plain, watered by a river, sheltered by hills on the north. The gardens and fields are delightful: and fine agates are found, but the diamonds seem fabulous.

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the residence of a Mandshur general, and the seat of a considerable trade, particularly in the celebrated plant called ginseng, which abounds in the neighbourhood. Sagalian Oula* Hotun signifies the city of the black river, and is the chief Mandshur settlement on that noble stream†.

The chief city of Corea is Kinkatao, of which we may be said only to know the name.

TRADE. The principal trade of the Mandshur country consists in ginseng, and pearls, found in many rivers which falls into the Amur. Excellent horses may also be classed among the exports. Cashgar was formerly celebrated for musk and gold‡. The other towns are rather stations for merchants, than seats of commerce. But the emporia of the Russian trade with China must not be forgotten, being on the Russian side Zuruchaitu on the river Argoon, and Kiachta; opposing to which, on the Chinese frontier, are correspondent stations erected of wood.

* In the Mandshur language, Oula signifies a river, as in the Chinese Kiang. Du Halde, iv. 530. *Pira* implies the same. In the Mongul *Mœren* is a river; *Alin* a mountain, also *Tababan; Hata* is a rock. In the Tatar or Turkish *Tag* is a mountain, *Daria* a river.

† Du Halde, iv. 19.

‡ Corea also produces gold, silver, iron, beautiful yellow varnish, and white paper, ginseng; with small horses about three feet high, ermine, beaver, and fossil salt. Du Halde, iv. 558.

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CHAPTER IV.

NATURAL GEOGRAPHY.

CLIMATE AND SEASONS.—FACE OF THE COUNTRY.—SOIL AND AGRICULTURE.—RIVERS.—LAKES.—MOUNTAINS.—FORESTS.—BOTANY.—ZOOLOGY.—MINERALOGY.—MINERAL WATERS.—NATURAL CURIOSITIES.

CLIMATE. THOUGH the parallel of central Asia, correspond with that of France, and part of Spain, yet the height, and snows of the mountainous ridges occasion a degree and continuance of cold, little to be expected from other circumstances. In climate and productions it is however far superior to Siberia.

FACE OF THE COUNTRY. The appearance of this extensive region is diversified with all the grand features of nature, extensive chains of mountains, large rivers, and lakes. But the most singular feature is that vast elevated plain, supported like a table, by the mountains of Tibet in the south, and Altaian chain in the north, from the mountains of Belur Tag in the west, to those that bound the Kalkas in the east.

PLAIN OF ASIA. This prodigious plain, the most elevated continuous region on the globe, is intersected by some chains of mountains, and by the vast deserts of Cobi and Shamo, by others considered as the same, the former being the Mongul, the latter the Chinese name. Destitute of plants and water, it is dangerous for horses, but is safely passed with camels. Little has been added to our knowledge of central Asia since D'Anville drew up his maps, from the materials furnished by the Jesuits in China, in which it would seem, that this desert extends from about the 80°th of east longitude from Greenwich, to about the 110°st, being 30° of longitude, which, in the lat. of 40°, may be 1380 geographical miles: but in this wide extent are Oases, or fertile spots, and even regions of considerable extent. On the other hand, the main desert sends forth several barren branches in various directions.

AGRICULTURE. Among the southern Mandshurs, and the people of Little Bucharia, agriculture is not wholly neglected, nor is wheat an unknown harvest. The soil of so extensive a portion of the earth, may be supposed to be infinitely various; but the predominating substance is black sand.

RIVERS. The most important river is that called by the Russians the Amur, by the Mandshurs, Sagalian Oula. The Amur is deservedly classed among the largest rivers: rising near the Yablonoi mountains, where it is first known by the names of Kerlon and Argoon, and pursuing an easterly course of about 1850 British miles. The Amur is the grand receptacle of the Mandshur [illegible]

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which the most considerable is the Songari, which itself receives the large river Nonni. The Russian waters of Selinga, and Irtish also pervade a part of central Asia. The river of Yarkand, perhaps the Oechardes of Ptolemy, has a considerable course before it enters the lake of Lop. The Ili, which falls into the lake of Balkash, is noted in Tataric history.

Lakes. Some of the lakes are of great extent, as those of Balkash, or Tengis, and Zaizan, each about 150 miles in length. Next is the Koko Nor, by some called Hoho Nor, or the blue lake, which gives name to a tribe of the Monguls. *Nor* is the Mongul term for a lake, which, by the Mandshurs, is styled *Omo*.

Mountains. The vast ranges of mountains which intersect central Asia have never been scientifically described, and few of them have even received extensive and appropriated appellations. It is highly probable that some of these ranges far exceed the Alps in height, as Pallas thinks that Elburz, the summit of the Caucasian chain, is higher than Mont Blanc: and probably the mountains of Asia are on as grand a scale as the rivers, and other features of nature. On the west the great chain called Imaus by the ancients, the Belur Tag, or dark mountains of the natives, runs from north to south.

In the eastern country of the Mandshurs, the ridges of mountains are laid down in the same direction.

The chief difficulties attend those in the centre. Those on the Russian frontier have been well described; but of the northern mountains of Tibet, and the sources of the Ganges, our knowledge remains imperfect. Still fainter light falls on the ridges which run in an easterly and westerly direction to the north of the great desert. It has already been observed, in describing the mountains of Asiatic Russia, that the great mountain of Bogdo, gives source to the Upper Irtish, and must therefore be that delineated in Arrowsmith's map of Asia, at longitude 94°, and latitude 47°. Thence a chain runs north-west called the Golden mountain, being the main Altaian ridge, while to the south-east passes a range called Changai. A ridge passing to the west is by the Tatars called Ala-Tau, and sometimes Allakoola, or the Chequered mountain. From the Arakoola, or Allakoola, the river Ili runs to the north*.

Further illustrations of this curious and obscure subject may be derived from the map published by Islenieff, a Russian officer, of a great part of western Tatary†. It is, however, to be regretted, that the ranges of mountains, which ought to have been delineated with as much precision as the rivers, are rather faintly indicated. Passing in silence the smaller mountains named in this map, which are very numerous, some remarks may be offered on the larger chains. That of Bogdo runs from the south-west to the north-east, about a degree

* Tooke's Russia, i. 149.

† Major Rennell is inclined to lend little credit to the Russian maps, because there is, as he conceives, an error of five degree of longitude, Samarcand, for instance, being placed about long. sixty-nine degrees from London, instead of sixty-four degrees. But in this mode of arguing, Ptolemy would not deserve to be once quoted; and the Russian maps seem, on the contrary, preferable to all others, till actual observations can be employed.

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and a half from the lake Lop, or Lok Nor. The chief Altaian chain passes in a more northerly direction, terminating towards the east at the lake of Upsa, whence it proceeds north-west towards the lake of Altyn; then bending south-west, forms the boundary between the Russian and Chinese empires. But as the greater Altai has little connection with that extensive frontier, it may be doubted whether Pallas, and Pennant have judiciously assigned the name of Altaian chain to the prodigious ridge which divides the Russian empire from the Chinese*. Islenieff marks the lesser Altai as being also denominated Chatai, or Chaltai: and continues the Russian frontier to the west, by the chain of Uluk Tag, whence several rivers flow into the Irtish. He also lays down a range, called Algidym Zano, in the country of the Kirguses of the middle hord.

The chain of Changai branches out at the further termination of the great Altai, passing south-east, as already mentioned. The mountains of Malgan proceed in an opposite direction on the south of the lake of Upsa, and the river Tez. Between the lake Zaizan and Cashgar are many rocky hills, the chief ranges seem to be those of Chamar Dalan and Ajagu, to the south and west of that lake; and the snowy range of Musart running east and west to the north of Cashgar, and continued by a still greater chain that of Alak, also called Terek Daban; and towards the south Belur Tag, or the Cloudy Mountains. This last seems to represent the Imaus of the ancients; while the range of Mus Tag, according to Islenieff, runs east and west in the thirty-eighth degree of latitude, giving source to several rivers which flow north into that of Irken, or Yarkand. Ptolemy, indeed, delineates the highest part of the Imaus in the same direction, and derives from it the sources of the Indus, and Ganges; which last river modern discovery deduces from a range four degrees more to the south. Islenieff himself is supposed to be in a similar error, when he derives the sources of the Syr and Amu, or Sihon and Jihon, from Belur Tag, or the Cloudy Mountains, omitting a parallel range about two degrees more to the west; yet the space between these two supposed ranges seems idly filled up by what is called the plain of Pamer; and perhaps the Russian geography is preferable. According to Islenieff, whose plain map may be preferred to any scientific theories, the range of Argjun, or Argun, and Karatau runs north-west and south-east, between the Sihon and the Talas; while that of Aktau runs south-west on the south of the Syr, or Sihon†.

* When the Altai joins this grand boundary, it is called the Chatai, or Lesser Altai. Hence Cathaian chain might be preferable.

† The Allakoola of Mr. Tooke is laid down by Islenieff as the eastern part of the Musart range, on the north of Little Bucharia. But the Musart of Pallas must pass in a different direction.

Some little additional information may be collected from the fourth volume of Du Halde. He observes, p. 23, that the river of Kalka, whence the name of the Kalkas, rises in a famous mountain called Suelki, or Siolki. This name may therefore be applied to the ridge which divides the Kalkas from Chinese Daouria. The river Songari, p. 92, rises in the mountain Champé, (Chan signifies a mountain,) famous as the original border of the Mandshurs, and said to be always covered with snow, whence its name which signifies the white mountain. This appellation may be applied to the ridge which runs

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The great rivers of Onon and Argoon, with others that flow in an opposite direction into the Selinga, rise from the high ridge of Sochondo, the summits of which consist of large rocks heaped on each other in successive terraces. There are two vast cavities, or abysses, with perpendicular sides, and small lakes at the bottom, which receive the melting snows, and give source to torrents which precipitate themselves with a terrible noise amidst the disjointed rocks. This ridge is clothed with perpetual snow; and, after dividing the rivers of Russian Daouria from those that flow into the Baikal, passes south-west, and joins an icy chain which runs into Mongolia*.

There are some forests near the rivers: but in general the extreme elevation and sandy soil of central Asia render trees as rare as in the deserts of Africa.

Botany. Of the botany of the whole central part of Asia, including the vast territories of Chinese Tatary, and Tibet, we are as yet in a manner totally ignorant. No European naturalist has ever even passed through, much less explored the vegetable products of these extensive regions. From their elevated situation, and their rigorous winters, it is obvious that no tropical plants, nor even those of the more temperate Asiatic countries are to be expected in their flora; and by the vague accounts of a few travellers combined with the little that we know of the sea coast of Tatary, it would appear that at least the commonest plants are for the most part the same as those of the north of Germany, mingled with a few Siberian species. Hence it seems that the territorial limits of the Indian and Siberian floras, are separated from each other by a broad band of European vegetables, which, entering Asia by the Uralian mountains, proceeds in a south-east direction

north from Corea, on the east of the river Songari. The river Onon, (a name, p. 514, of the Sagalian till joined by the Argoon) rises from the mountains of Kentey, which also give source to the Tula and the Kerlon: p. 522, 523. The Kentey is therefore another name for the mountains of Kinhan, or perhaps more strictly those of Sochondo: and he also mentions those of Altay, and those of Trangha, and Cocoy. His Hangai, to the south-east of Altay, is the Changai of Pallas, and probably the Trangha is the same name disfigured by an error of the press. The Cocoy, he says, is a low chain between the Altay and the Hangai, but this geography is unsatisfactory. He adds, that the river Hopto runs along the chain of Cocoy, and falls into the lake of Ekaral, to the west of Hangai, while the lake of Kirkil is to the east of Hangai, and receives two rivers which flow from that mountain. See D'Anville's map of Asia: but that geographer's radical misconception of the width, and extent of mountainous chains disfigures all his maps. That of Isleniefl greatly differs: but the Cocoy seems the Bogdo. In the Jesuitic maps the lake Upsa stands due north from Ekaral, while it is *six degrees* to the east: and the Upper Irtish runs north instead of west.

Mr. Bell. i. 427, 8vo. observed a chain of mountains in the north-west of China, about fifteen miles in breadth, in length above one thousand miles, running north and south, and encompassing the greater part of China to the north and west. Where he crossed the sandy desert, p. 405, it was twenty miles broad; but in some places is thirty leagues. This sandy desert should be laid down in the maps like those of Africa.

* Dec. Russes, vi. 248...254, where the last is termed the Gungurtian and Manstricanian mountains. The original German must be obscure, for the French translation, and Mr. Tooke's extracts, sometimes present an unintelligible phraseology. The Gungur must be the Hongur of D'Anville.

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as far as the Tatarian borders, whence it stretches due east quite across the continent, to the river Amur, and the coast of Mandshur Tatary. The southern frontier of Tibet as it partakes of the climate of India, so it resembles this last in some of its vegetable productions, and for the same reason there are many common features in the floras of Siberia, and the north of Tatary. It is probable also that peculiar species, or even genera may hereafter be found in such an extensive tract. The only indigenous plants that we are as yet certainly acquainted with, except what belong to Siberia, or India, are that well-known and singular fern the Polypodium barometz, called also the *Scythian lamb:* panax quinquefolium, *ginseng*, the favourite drug of China; and rheum palmatum, which at least is one of the plants that furnish the true *rhubarb*.

Zoology. The zoology of this wide portion of the globe would supply an infinite theme, in which the camel of the desert might appear with the rock goat of the Alps, and the tiger with the ermine. The wild horse, and the wild ass, and a peculiar species of cattle which grunt like swine, are among the most remarkable singularities. The wild horse is generally of a mouse colour, and small, with long sharp ears.

Mineralogy. The mineralogy of central Asia has been little explored. Gold is found both in the eastern and western regions, and the former are also said to produce tin. As Russian Daouria exhibits so many valuable substances, it is reasonable to conclude that they equally abound in the Chinese territory, if similar skill and industry were exerted in their detection. The mineral waters, and uncommon appearances of nature, have been little investigated.

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ISLAND

OF

SAGALIAN, OR TCHOKA.

TILL this large island was explored by the unfortunate navigator La Perouse, it was supposed to be only a small isle at the mouth of the Amur, the southern extremity being placed by D'Anville about four degrees, or 240 geographical miles, to the north of Jesso. By the account and maps of La Perouse, which have since been followed, it is only divided from Jesso by a narrow strait of about twenty miles in breadth, since called the strait of Perouse. The discovery and account of this large island, which extends from the forty-sixth degree of latitude, to the fifty-fourth degree, or not less than 480 geographical miles in length, by about eighty of medial breadth, is the most important portion of that navigator's voyage. The natives seem to approach to the Tataric form; and the upper lip is commonly tatooed blue. Dress, a loose robe of skins, or quilted nankeen, with a girdle. Their huts, or cabins, of timber, thatched with grass, with a fire-place in the centre. In the south are found Japanese articles. A little trade seems also known with the Mandshurs, and the Russians. The native name of this large island is Tchoka, that used by the Japanese, Oku Jesso, perhaps implying further Jesso; while the Russians, who only know the northern part, call it the isle of Sagalian, because it is opposite to the large river of that name. The centre is mountainous, and well wooded with pine, willow, oak, and birch; but the shores are level, and singularly adapted to agriculture. The people are highly praised by La Perouse as a mild and intelligent race. The portraits which he gives of three old men, with long beards, rather resemble the European than the Tataric lineaments: and La Perouse expressly informs us that they are quite unlike the Mandshurs, or Chinese. He observes as a singularity that their words for *ship*, *two*, and *three* are nearly the same with the English; and for this he refers to the vocabulary, in which, however, ship is *kahani:* two is indeed *tou*, but three is *tche*. The island of Jesso, and some others to the north of Japan, will be described in the account of that interesting country.

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PART III.

CHINESE EMPIRE.

TIBET.

NAMES.—EXTENT.—BOUNDARIES AND PROVINCES.—PROGRESSIVE GEOGRAPHY.—RELIGION.—GOVERNMENT.—POPULATION.—MANNERS.—LANGUAGE AND LITERATURE.—CITIES AND TOWNS.—MANUFACTURES AND COMMERCE.—CLIMATE AND SOIL.—RIVERS.—MOUNTAINS.—ZOOLOGY.—MINERALOGY.—NATURAL CURIOSITIES.

THE account of this interesting country must unfortunately be limited in the topics, as the materials are far from being ample. The recent narrative of Capt. Turner's journey shall be selected as the most authentic; but it only embraces a small part, and for the general geography recourse must be had to more antiquated authorities*. Tibet, with its numerous independencies, may in fact still be arranged among the *undiscovered* countries in the centre of Asia.

NAMES. The name of *Tibet*, which is probably Hindoo, or Persian, is in the country itself, and in Bengal pronounced *Tibbet*, or *Tibt*. But the native appellation is *Puc*, or *Puc Koachim*, said to be derived from *Puc*, signifying northern, and *Koachim*, snow; that is the snowy region of the north†.

EXTENT. According to the most recent maps, Tibet extends from about the seventy-fifth to the 101st degree of longitude, which in the latitude of thirty degrees, may be about 1350 geographical miles. The breadth may be regarded as extending from the twenty-seventh to the thirty-fifth degree of latitude, or about 480 geographical miles‡. The

* For an account of Nipal, see Hindostan: and the authors there mentioned may be consulted for a further account of Tibet.

† Turner, p. v. and 305.

‡ Probably at least to thirty-seven degrees, which would add 120 G. miles: for Mus Tag is, according to the Russians, the northern boundary of Tibet: and they place that range in thirty-eight degrees.

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original population has not been accurately examined, but as the people of Bootan, which is regarded as a southern province of Tibet, are said to differ essentially and radically from the Hindoos, and somewhat to resemble the Chinese; it may perhaps be concluded that they belong to that grand race of men, which approaches the Tataric, though they cannot be regarded as Mandshurs, Monguls, or Tatars proper.

Boundaries and Provinces. As Mr. Forster in his travels observes, that the material for the shawls of Cashmir is "brought from districts of Tibet, lying at the distance of a month's journey to the north-east*:" and as Tieffenthalar, in his account of Cashmir, specially mentions that Great Tibet is to the north-east of that country, and Little Tibet to the north-west†, there is every reason to infer that our maps are wholly defective in fixing the northern boundary of this country, which ought to be extended to the sources of the rivers of Little Bucharia, between the thirty-seventh and thirty-eighth degree of north latitude. Tieffenthaler‡ also mentions, that the nearest route to Cashgar would be through Great Tibet, but, this not being permitted, the passage is through Little Tibet, the capital of which, Ascardu, is eight day's journey from the north limit of Cashmir. Further on is Schakar: and after travelling thence for fifteen days, through thick forests, appears the frontier of Little Tibet. In other fifteen days the caravan reaches Cashgar, formerly the residence of the prince; but it is now at Yarkand, ten days further to the *north*||.

These clear testimonies of two intelligent travellers seem to evince that the northern boundary of Tibet may be safely extended two degrees further than it appears in our best maps, in which there is no portion of Great Tibet to the north-east of Cashmir. It would seem that the Chinese Lamas, in their great haste to escape from the Eluts, who attacked Lassa**, were contented with bare reports, not only concerning the sources of the Ganges, but the whole western provinces of Tibet. From their rude drawings, D'Anville placed the northern limit of this country, (as well as of Cashmir) in latitude thirty-four degrees, and when Major Rennell judiciously, but cautiously, moved it one degree further to the north, he might safely have extended it at least three degrees. The source of the Ganges stood in the Chinese map, latitude twenty-nine degrees thirty minutes: D'Anville found it indispensable to raise it to thirty-two degrees, and Rennell to thirty-three degrees fifteen minutes††. Hence it appears that one radical defect, in that very imperfect and erroneous map, was the great diminution of the latitude. To fill up this deficiency, geographers have here introduced the great sandy desert of Cobi; which, as appears from Marco Polo, and other travellers, is in the centre of Asia, corresponding in latitude with that

* Vol. ii. p. 18. † Bernoulli, Tome i. p. 77. ‡ P. 84.

|| This last intelligence is new, but as all our maps place Yarkand to the south, the sole testimony of Tieffenthaler cannot be followed. He adds that from Cashgar to Cathay, or the north-west of China, the caravans occupy two months, a space which agrees with the positions. As Little Tibet is to the north of Cashmir, and is bounded on the east by Great Tibet, (Bernier) it is clear that the latter must extend further north than our maps bear.

** Du Halde, iv. 577. †† Rennell, 310.

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of Shamo, on the north of China, beginning near Yarkand, but spreading into a far wider expanse at the city of Lop, further to the east*.

The extracts from Giorgi, and others, concerning Tibet, in Bernoulli's third volume, bear that it is divided into three parts, Upper, Middle, and Lower. Upper Tibet chiefly comprises the province of Nagari, full of horrible rocks, and mountains covered with eternal snow. Middle Tibet contains the provinces of Shang, Ou, and Kiang: while the provinces of Lower Tibet are Takbo, Congbo, and Kahang.

In this division the countries of Lata, or Ladak, (Latact) and Breguiong, or Bramascion, (perhaps Sirinagur, which abounds with Bramins,) mentioned in another here given, being omitted, it is probable that they constitute, with Nagari, what is called Upper Tibet.

Many of these provinces are again subdivided: for instance Nagari, which is considered as a kingdom of three departments, Sangkar, Pourang, and Tamo (Dam, or Daum?). Shang is on the west, bounded by Nipal. The province of Ou contains Lassa, the capital of Tibet. Kiang is to the north (north-east) of Ou; and is inhabited by mingled Tibetans and Monguls in tents. Kahang is in the south-east, bordering on the Birmans, and is divided into twelve departments†.

To these must be added the wide region of Amdoa, if it be not the same with Kahang, but it seems more probably to embrace the confines towards China, as the natives are remarkably ingenious, and speak the Chinese language. The country of Hor is situated betwixt Tatary and the provinces of Nagari and Kiang, and seems to be the Hohonor of our maps. In tracing these numerous provinces, the map of the lamas will be found entirely useless. Our Bootan is by the natives styled Deepo, or Takbo: all the countries to the west of which, as Moringa, or Morung, Mocampour, Nipal, Gorca, and Kemaoon, (for Almora is only a city,) are not considered as parts of Tibet. The confusion of Chinese, Mongul, and Tibetan appellations has been a great impediment in the geography of this extensive country; the north-east part of which was, with the Chinese province of Shensi, before the great wall, was extended in this quarter, the celebrated Tangut of oriental history and geography‖. On the western side, high mountains covered with perpetual snow, and with all the terrible avalanches, and other features of the Swiss Alps, have in all ages prevented the Persians, and the conquerors of Bucharia from invading this country; while the deserts in the north-east have proved ineffectual barriers against the Monguls and Eluts. These almost inaccessible western

* Paul. Venet. Cap. 43, 44. edit. Muller, 1671, 4to.

† By Desideri's account Lett. Edif. xv. and Astley, iv. 453, Latac forms a kind of detached sovereignty. The town is seven miles north of the river Lachu, which falls into the Ganges (rather the Indus, for *Ganga* only means the river.) Chaparong stands eighty miles south-east, probably on another river which joins the Indus. If Latac, or Chaparong stood near the Ganges, they would be well known to the Hindoo pilgrims, which is not the case.

‡ Penna informs us that the secular princes had maps of the country, and it is to be regretted that our envoy did not request one from the lama.

‖ In the German work called New Memoirs of the North, of which Pallas published four volumes 8vo. 1783, there is vol. i. an account of Tibet from the reports of the lamas to Muller and Pallas. In vol. iv. Backmann has abstracted all the intelligence concerning this country.

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mountains have also prevented travellers from penetrating in that quarter, which is little better known at present than in the time of Ptolemy.

Progressive Geography. The progressive geography of Tibet chiefly dates from a recent period; for though Ptolemy's knowledge extended to the golden Chersonnese, or Pegu, and the western shores of the Siamese monarchy, yet as his Seres, or the furthest inland people known to him in this quarter, were situated in Little Bucharia, there is no room to believe that the snowy mountains of Tibet had been penetrated by the ancients. The Portuguese commerce with the East-Indies may be said to have first disclosed this ample region, of which, however, our knowledge, even at this day, is lamentably defective. Yet Tibet seems to have been the southern part of the Tangut of Marco Polo*, and other travellers. Polo, indeed, specially describes the province of *Tebeth*, (which he says contained eight kingdoms, with many cities and villages,) as a mountainous country, producing some gold and spices, a large breed of dogs, and excellent falcons.

About 1715, the emperor of China being desirous to obtain a map of Tibet, two lamas were sent who had studied geometry in a mathematical academy†. These lamas drew a map from Sining, in the province of Shensi, to the sources of the Ganges; which was afterwards examined by the Jesuits, and improved by them, so far as their materials would admit. This map, published in the Atlas of Du Halde's work, unfortunately continues almost the sole authority, and is followed, with a few variations, by the most recent geographers. It seems but of doubtful credit, especially in the western parts, where the source of the Ganges is confessedly only from the report of some Tibetan lamas‡; whence it is no wonder that recent accounts seem to evince it to be erroneous, nor is it certain whether the adjacent parts have Lamas or Bramins. In the south the Chinese Lamas certainly never passed the ridge of Himmala: whence Nipal, Bootan, and other countries are omitted; and even the names in general appear rather to be arbitrary Chinese terms than real appellatives of places, so that in fact we may be said to possess no map of Tibet in this the nineteenth century. Other most suspicious circumstances in the pretended Chinese Atlas of Tibet are, that there are no distinct names of small kingdoms, states, or provinces, though from recent accounts these seem particularly to abound in the country; and that the great river Gogra is totally unknown and omitted.

The geography of Asia cannot be said to be complete till we have new and correct maps of the central parts, particularly of Tibet, which may be called the heart of Asia, whence the streams of life flow into the vast southern regions of that extensive country. The sources of the Ganges and Indus, the Sanpoo, and all the prodigious and fertile streams of exterior India, and of China, belong to this interesting region; and must be exactly traced and delineated before we can have precise and scientific ideas of Asiatic geography.

History. The Lama of Tibet was the Prester John of the middle ages, if he were not some nestorian Chan:‖ and this strange

* Cap. xxxvi. edit. 1537. † Du Halde, iv. 571.
‡ Ib. 577. ‖ Gibbon, viii. 341.

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appellation was as strangely transferred by Portuguese ignorance to the emperor of Abyssinia. Polo also informs us, that Tibet had been ravaged by the Monguls, so that in his time it was almost desolate. The quiet succession of the lamas would afford few materials for history; and the petty secular chiefs* of distinct provinces or kingdoms may perhaps sometimes be traced in the Chinese or Hindoo annals, but would little interest an European reader. As the tombs and monasteries are often constructed of stone, some may remain of remote antiquity. But the idols cut in the rocks, are little calculated to impress travellers with the idea of much perfection in the arts.

Religion. The religion of Tibet seems to be the schismatical offspring of that of the Hindoos,† "deriving its origin from one of the followers of that faith, a disciple of Budh, who first broached the doctrine which now prevails over the wide extent of Tatary. It is reported to have received its earliest admission in that part of Tibet bordering upon India, (which from hence became the seat of the sovereign lamas;) to have traversed over Mantchieux Tatary, and to have been ultimately disseminated over China and Japan. Though it differs from the Hindoo in many of its outward forms, yet it still bears a very close affinity with the religion of Brahma, in many important particulars. The principal idol in the temples of Tibet is Mahamoonie‡, the Budha of Bengal, who is worshipped under these and various other epithets, throughout the great extent of Tatary, and among all the nations to the eastward of the Berhampooter. In the wide extended space, over which this faith prevails, the same object of veneration is acknowledged under numerous titles; among others he is styled Godama, or Gowtama, in Assam and Ava; Samana in Siam; Amida Buth in Japan; Fohi in China; Budha, and Shakamuna in Bengal, and Hindostan; Dherma Raja, and Mahamoonie in Bootan, and Tibet. Durga and Kali; Ganeish, the emblem of wisdom; and Cartikeäh with his numerous heads and arms, as well as many other deities of the Hindoo mythology, have also a place in their assemblage of gods.

"The same places of popular esteem, or religious resort, as I have already hinted, are equally respected in Tibet and in Bengal; Praag, Cashi, Durgeedin, Saugor, and Jagarnaut, are objects of devout pilgrimage; and I have seen loads of the sacred water taken from the Ganges travelling over these mountains, (which by the bye contribute largely to its increase,) upon the shoulders of men whom enthusiasts

* Yet Tibet was for some time subject to secular kings, called Tsan Pa; and the lama resided at Lassa with a power similar to that of the spiritual prince of Japan. Those Monguls called Eluts conquered the secular prince, and transferred the whole power to the lama. (Du Halde, iv. 50.) See also, in the same author, iv. 570, an account of the disputes which arose between the ancient or red lamas, and the yellow, who, by the influence of China, obtained the ascendancy. In 1792, the Nipalese having committed great ravages in Tibet, the emperor of China sent an army to protect the lama; in consequence of which the Chinese have established military posts on the frontiers, so that the intercourse between their country and Bengal is now precluded. Turner, 441.

† Turner. p. 306.

‡ "This term is Sanscrit, and literally signifies Great Saint."

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have deemed it worth their while to hire at a considerable expense for so pious a purpose.

" As far as I am able to judge respecting their ritual, or ceremonial worship, it differs materially from the Hindoo. The Tibetans assemble in chapels, and unite together in prodigious numbers to perform their religious service, which they chant in alternate recitative, and chorus, accompanied by an extensive band of loud and powerful instruments: so that, whenever I heard these congregations they forcibly recalled to my recollection both the solemnity and sound of the Roman Catholic mass."

Perhaps this similarity may arise from the nestorian form of christianity, supposed to have anciently made some progress in this country. There are numerous monasteries containing crowds of *gylongs*, or monks, with a few *annees*, or nuns.

Government. The ruling government is the spiritual, though the lama were accustomed to appoint a *tipa*, or secular regent, a right which has probably passed to the Chinese emperor. In Bootan, generally considered as a province of Tibet, there is a raja, or prince, called Daeb, whose authority, however, is far from being firm, or extensive. The laws must, like the religion, bear some affinity to that of the Hindoos.

Population. No estimate of the population of Tibet seems to have been attempted, but as the country may be said to be wholly mountainous, and the climate excessively cold, even under the twenty-seventh degree of latitude, (the influence of mountains being far superior to that of imaginary zones,) the people are thinly scattered, and the number of males far exceeds that of females. From the ease with which the conquest was effected by the Eluts, and other circumstances, it can scarcely be conceived that a monarch of all Tibet could have brought into the field an army of more than 50,000; and allowing that (exclusive of the numerous monks) only every tenth person assumed arms, the population would be half a million, a circumstance which will not surprise those who consider that a few families in central Asia assume the name of a nation. But this number is probably far too small; and it can only be said that the population seems scanty. The ancient nomadic crowds are now reduced to a small number, from the extensive bands who followed their victorious chiefs having settled in more civilized countries, and from the natural progress of human affairs, which leads mankind to exchange a severe climate, and barren soil, for more fertile, and favoured regions. From these and other causes, the population of a country may become exhausted, as well as its vegetation. Even the numerous armies of the Hunnish and Mongul victors, were chiefly supplied with recruits from more southern countries, previously vanquished: the miseries of war being the greatest source of soldiers.

Revenues. The revenues of the lama, and of the secular princes, seem to be trifling; nor can Tibet ever aspire to any political importance, except in the improbable case that a supposed emperor of Hindostan were carrying on war against China. In a commercial point of view, friendship and free intercourse with Tibet might open new advantages to our settlements in Bengal; and in this design repeated

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envoys to the lama were sent by Mr. Hastings, a governor who possessed the most enlarged and enlightened mind, and an active attention to the interests of his country.

Character. Mr. Turner represents the character of the Tibetans as extremely gentle and amiable. The men are generally stout, with something of the Tataric features, and the women of a ruddy brown complexion, heightened like the fruits by the proximity of the sun, while the mountain breezes bestow health and vigour.

Marriage Ceremonies. "The ceremonies of marriage are neither tedious nor intricate in Tibet*. Their courtships are carried on with little art, and quickly brought to a conclusion. The elder brother of a family to whom the choice belongs, when enamoured of a damsel makes his proposal to the parents. If his suit is approved, and his offer accepted, the parents, with their daughter, repair to the suitor's house, where the male and female acquaintance of both parties meet, and carouse for the space of three days, with music, dancing, and every kind of festivity. At the expiration of this time the marriage is complete. The priests of Tibet who shun the society of women, have no share in these ceremonies, or in ratifying the obligation between the parties. Mutual consent is their only bond of union; and the parties present are witnesses to the contract, which, it seems, is formed indissolubly for life. The husband has it not in his power to rid himself of a troublesome companion, nor the wife to withdraw herself from the husband, unless, indeed, the same unison of sentiment that joined their hands, should prompt their separation; but in such a case, they are never left at liberty to form a new alliance. Instances of incontinency are rare, but if a married female be found to violate her compact, the crime is expiated by corporeal punishment, and the favoured lover effaces the obloquy of his transgression by a pecuniary fine."

It is a remarkable characteristic of the country, that polygamy here assumes a different form from that of other oriental regions; the women being indulged in a plurality of husbands, instead of the reverse. It is the privilege of the elder brother to select a wife, who stands in an equal relation to his other brothers, whatever may be the number†. The same custom is said to have been clandestinely practised at Venice, from views of family pride, united with poverty; but in Tibet it is reported to be founded in the great paucity of females, when compared with the number of males, though a vast quantity of the latter be buried in the monasteries.

Burials. Such is the respect paid to the lama, that his body is preserved entire in a shrine; while those of the inferior priests are burnt, and their ashes preserved in little hollow images of metal. But in general the dead bodies are exposed to the beasts, and birds of prey, in walled areas; and an annual festival is held, as in Bengal and China, in honour of the dead.

A curious idea of the manners and customs of the Tibetans may be formed from Mr. Turner's account of his interview with the lama, then an infant not capable of speech; for, in the spirit of the eastern

* Turner, 352. † Du Halde and Turner.

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metempsycosis, they suppose that the soul of the lama passes from his late body into another, which they discover by infallible marks.

Upon the whole, the Tibetans appear to have made a considerable progress in civilization; but the sciences continue in a state of imperfection, the year for instance being lunar, and the month consisting of twenty-nine days.

LANGUAGE. The language of Tibet is reported by Du Halde to be the same with that spoken by the people of Sifan, on the western frontiers of China; but as this province is itself sometimes included in Tibet, the information becomes vague; nor have the origins of the Tibetan speech been properly investigated. The literature is chiefly of the religious kind, the books being sometimes printed with blocks of wood, on narrow slips of thin paper, fabricated from the fibrous root of a small shrub. In this practice they resemble the Chinese; while the Hindoos engrave their works with a steel stylus upon the recent leaves of the palmyra tree, (borassus flabelliformis,) affording a fibrous substance, which seems indestructible by vermin*. The printed and formal letters are called the *uchen;* while those of business and correspondence are styled *umin*. From Mr. Turner's account it would seem that the writing runs from the left to the right, as in the languages of Europe.

The gylongs, or monks, pass through a regular education; and it is to be supposed sometimes teach children not destined to religious confinement.

CITIES AND TOWNS. Of the cities and towns of Tibet little is known. The capital is Lassa: and several other names in the southern part assume the character of towns in the maps, though probably mere villages. Tassisudon, for instance, only consists of scattered groups of hovels. There being little commerce, there is no middle class of people, but the transition is rapid from the miserable hut to the stone palace or monastery.

LASSA. Lassa, the capital of Tibet, is situated in a spacious plain, being a small city, but the houses are of stone, and are spacious and lofty†. The noted mountain of Putela, on which stands the palace of the Lama, is about seven miles to the east of the city. As *La* means a hill in the native tongue, this name may imply the hill of Pouta or Boodh. To the north of Lassa appears another vast range of mountains, covered with snow, which are clearly seen from Kambala, a very high mountain on the north of the lake of Iandro or Palti. Lassa is in the province of Ou, and almost in the centre of Tibet‡.

EDIFICES. Among the edifices, the monasteries may be first mentioned. Mr. Turner describes that of Teshoo Loomboo, as containing three or four hundred houses, inhabited by monks, besides temples, mausoleums, and the palace of the sovereign pontiff. The buildings are all of stone, none less than two stories in height, with flat roofs, and parapets composed of heath and brushwood, probably to emit the melting snow. The centre window projects beyond the wall, and forms a balcony. Some of the palaces and fortresses are described and delineated by Mr. Turner; and the architecture seems respectable. Bridges occur of various fantastic forms; sometimes

* Turner, 323. † Rennell, 306. ‡ Bernoulli, iii. 227.

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consisting of chains, drawn from precipice to precipice; sometimes of beams, one end being fixed in the shore, while the other successively increases its projection till the uppermost timbers support a short passage of planks, thus resembling the upper section of an octagon. The roads amidst the rocky mountains resemble those of Switzerland, and are particularly dangerous after rain.

Manufactures. The chief manufactures of Tibet seem to be shawls, and some woolen cloths: but there is a general want of industry, and the fine undermost hair of the goats, from which shawls are manufactured, is chiefly sent to Cashmir. The principal exports are to China, consisting of gold dust, diamonds, pearls, coral, (which is mentioned by Marco Polo as a commodity of the country*) lamb skins, some musk, and woolen cloths. Many of the Chinese exports are manufactured. To Nipal, Tibet sends rock salt, tincal, or crude borax, and gold dust; receiving in return base silver coin, copper, rice, and coarse cotton cloths. Through Nipal is also carried on the chief trade with Bengal, in gold dust, tincal, and musk. The returns, broad cloth, spices, trinkets, emeralds, sapphires, pheirosa or lazulite, jet, amber, &c. With Asam in the south-east, there is no intercourse; and the little trade with Bootan may rather be regarded as internal.

Trade. The trade with China, which is the principal, is chiefly conducted at the garrison town of Sining, in the western extremity of the province of Shensi, where tea is greedily bought by the Tibetans. There is no mint in Tibet, as such an institution is prevented by religious prejudices; but the base silver of Nipal is current throughout the country.

Climate. The climate of Bootan may be said to be temperate, when compared with that of Tibet Proper: yet the winters are very severe even in the former country. "In the temperature of the seasons in Tibet a remarkable uniformity prevails, as well as in their periodical duration and return. The same division of them takes place here as in the more southern region of Bengal. The spring is marked, from March to May, by a variable atmosphere: heat, thunder storms, and occasionally with refreshing showers. From June to September is the season of humidity, when heavy and continued rains fill the rivers to their brim, which run off from hence with rapidity to assist in inundating Bengal. From October to March a clear and uniform sky succeeds, seldom obscured either by fogs or clouds. For three months of this season a degree of cold is felt, far greater perhaps than is known to prevail in Europe. Its extreme severity is more particularly confined to the southern boundary of Tibet, near that elevated range of mountains which divides it from Asam, Bootan, and Nipal†."

Thus the distinguishing characteristic of the climate is that extreme dry and parching cold, which, under the latitude of twenty-six degrees, near the torrid zone of antiquated geography, rivals that of the Alps in latitude forty-six degrees.

Face of the Country. From the same intelligent traveller we learn, that Bootan, with all its confused and shapeless mountains,

* ii. 37. Whence was this coral? It was used as money. Can it have been from the large lakes?

† Turner, 360.

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is covered with eternal verdure, and abounds in forests of large and lofty trees*. The sides of the mountains are improved by the hand of industry, and crowned with orchards, fields, and villages. Tibet proper, on the contrary, exhibits only low, rocky hills, without any visible vegetation, or extensive arid plains, of an aspect equally stern; while the bleak and cold climate constrains the inhabitants to seek refuge in sheltered vales and hollows, or amidst the warmest aspects of the rocks. Yet Tibet produces great abundance and variety of wild fowl and game; with numerous flocks of sheep and goats, and herds of cattle, and is infested by many beasts of prey: while in Bootan, few wild animals are found except monkeys, and a few pheasants. Tibet proper must indeed be considered as a mineral country, the mountains presenting a peculiarly naked aspect, which indicates that they contain rich ores, for the fumes of large masses of metal are poisonous to vegetation.

Soil. The nature of the soil here prohibits the progress of agriculture. The vales are commonly laid under water on the approach of winter: in the spring they are ploughed and sown, while frequent showers and a powerful sun, contribute speedily to manure the crops†. The autumn being clear and tranquil, the harvest is long left to dry on the ground; and when sufficiently hardened is trod out by cattle. The course of cultivation is wheat, peas, and barley; rice being confined to a more southern soil.

Rivers. The chief river of Tibet is, beyond all comparison, the Sampoo or Berhanpootar, which rising in the western region, from the same lofty mountains that give source to the Ganges, proceeds in an east and south-east direction, for about the space of 1000 English miles, to the confines of Tibet and Asam, where it bends south-west, and flows into the estuary of the Ganges, after a further course of about 460 British miles.

The Hoan-ho and Kian-ku of the Chinese also derive their origin from the eastern boundaries of Tibet. Of the other rivers, little is known; but the great Japanese river of Cambodia, or Maykaung of Laos; that of Nou Kia, supposed to pass near Martaban into the gulf of Pegu; and the Irrawady of this last country, are all supposed to derive their sources from the mountains of Tibet, which may be styled the Alps of Asia. Nor must it be forgotten that another large river, called the Sardjoo or Gagra, which after a course of about 600 miles, nearly parallel on the east, with that of the Ganges, joins it near Chupra, also derives its spring from the lofty western mountain of Tibet.

Lakes. These Alpine regions contain, as usual, many lakes, the most considerable being represented under the name of Terkiri, about eighty British miles in length, and twenty-five broad. The Chinese lamas, who drew up the map of Tibet, which geographers still copy in the want of superior authorities, have also depicted many other lakes in the northern parts of the country; where there certainly exists one very singular, which yields the tincal or crude borax. Equally uncommon is the lake to the south of Lassa, which our maps call Jamdro or Palté, the last appellation probably from Peiti, a village

* Turner, p. 216. † Ibid 354.

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which the original atlas of Du Halde places on its margin. This strange lake is represented as a wide trench, of about two leagues broad, everywhere surrounding an island of about twelve leagues in diameter; if true, a singular feature of nature. Even the smaller lakes in the south of Tibet proper are in the winter frozen to a great depth.

Mountains. The vast ranges of Tibetan mountains have already been repeatedly mentioned; but there is no accurate geographical delineation of their course and extent. Those in the west and south seem to bend in the form of a crescent, from the sources of the Ganges, to the frontiers of Asam, in a north-west and south-east direction. To the north of Sampoo a parallel and yet higher ridge seems to extend, the northern extremities abounding with large frozen lakes. In Du Halde's atlas, which was drawn up by the able D'Anville, the mountains which give source to the Ganges are called those of Kentaisse, and seem to belong to the northern chain known by many local names; but the chief elevation appears as usual to be central, to the south of the lake Terkiri, being called Koiran, an appellation which might therefore be scientifically extended to the whole chain, if that of Kantel (the western part) be rejected. The southern range also presents many names of distinct mountains, but the Hindoo name of Himmala is preferable*.

From these great ranges many branches extend north and south as in the Alps, and their names may perhaps be traced, but with little accuracy, in the general map of Tibet, and atlas of the provinces, drawn up by D'Anville from the sketches of the missionaries, and already repeatedly quoted.

Forests. Bootan, the southern province of Tibet, abounds with forests containing many European trees, though the oak be wanting; and several peculiar to Asia. Nipal, the adjoining province to the west, probably presents similar features. The high snowy mountains which contain the sources of the Ganges are perhaps barren of vegetation, a character generally applicable to Tibet proper.

Zoology. In Bootan few wild animals are observable, except monkeys; but Tibet abounds with game of various descriptions. The horses are of a small size, or what we term ponies, but spirited to a degree of obstinacy. The cattle are also diminutive. The flocks of sheep are numerous, commonly small, with black heads and legs; the wool soft, and the mutton excellent. It is a peculiarity of the country that the latter food is generally eaten raw. When dried in the frosty air it is not disagreeable, in this state, to an European palate†.

The goats are numerous, and celebrated for producing a fine hair, which is manufactured into shawls, and which lies beneath the exterior coarse coat. Nor must the singular breed of cattle be forgotten, called

* The southern range is the Himalaya (Imaus?) of Hindoo mythology. The Chumularee near Phari, on the north frontier of Bootan, is one of the highest peaks. Turner, 293.

Du Halde's map of Tibet seems to exclude Bootan, and several provinces on the south-west.

† Turner, 302.

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Yak by the Tatars, covered with thick long hair: the tail being peculiarly flowing and glossy, and an article of luxury in the east, where it is used to drive away the flies, and sometimes dried for ornaments. These cattle do not low, but, when uneasy, make a kind of grunting sound, whence the breed is called the *bos grunniens*.

The musk deer delights in intense cold. This valuable animal has two long curved tusks, proceeding downward from the upper jaw, which seems intended to dig roots, his usual food. The figure of the body somewhat resembles the hog, while the hair approaches the quills of the porcupine. The musk, which is only found in the male, is formed in a little tumor at the navel; and is the genuine and authentic article so styled, being commonly black, and divided by thin cuticles*.

The wild horse is also classed among the quadrupeds of Tibet. The tiger may perhaps appear in the south-east, but the many other beasts of prey, as the ounce, &c. are of small size, as may be expected in so cold a climate.

The lakes abound with water fowl in the summer, many of which may perhaps be new to zoology; and little is discovered concerning the fish and insects of this singular country.

Mineralogy. The mineralogy is better known from the account appended to Mr. Turner's journey, in 1783, from which it appears that Bootan does not probably contain any metal except iron, and a small portion of copper; while Tibet proper, on the contrary, seems to abound with rich minerals. Gold is found in great quantities, sometimes in the form of dust in the beds of rivers, sometimes in large masses, and irregular veins, commonly in a gangart of petrosilex or of quartz. There is a lead mine, two days journey from Teshoo Lumboo, the ore being galena, probably containing silver. Cinnabar, rich in quicksilver, is also found: and there are strong indications of copper. Rock salt is another product of Tibet. But in general the metals cannot be worked, as there is a complete deficiency of fuel: and coal would be far more precious than gold.

The most peculiar product of Tibet is tincal, or crude borax; concerning which, Mr. Saunders, who accompanied Mr. Turner, gives the following interesting information. "The lake, from which tincal and rock salt are collected, is about fifteen days journey from Teshoo Lumboo, and to the northward of it. It is encompassed on all sides by rocky hills, without any brooks or rivulets near at hand: but its waters are supplied by springs, which being saltish to the taste are not used by the natives. The tincal is deposited or formed in the bed of the lake: and those who go to collect it dig it up in large masses, which they afterwards break into small pieces, for the convenience of carriage, exposing it to the air to dry. Although tincal has been collected from this lake for a great length of time, the quantity is not perceptibly diminished; and as the cavities made by digging it soon wear out, or fill up, it is an opinion with the people that the formation of fresh tincal is going on. They have never yet met it in dry ground or high situations, but it is found in the shallowest depths, and the

* Turner, 200.

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borders of the lake; which deepening gradually from the edges towards the centre, contains too much water to admit of their searching for the tincal conveniently; but from the deepest parts they bring rock salt, which is not to be found in shallows, or near the bank. The waters of the lake rise and fall very little, being supplied by a constant and unvarying source, neither augmented by the influx of any current, nor diminished by any stream running from it. The lake, I was assured, is at least twenty miles in circumference; and, standing in a very bleak situation, is frozen for a great part of the year. The people employed in collecting these salts, are obliged to desist from their labour so early as October, on account of the ice. Tincal is used in Tibet for soldering, and to promote the fusion of gold and silver. Rock salt is universally used for all domestic purposes in Tibet, Bootan, and Nipal.*"

Mineral Waters. There are many mineral waters in various parts of this extensive country; nor is their salutary use unknown to the natives.

Natural Curiosities. The natural curiosities of this Alpine region must of course be numerous, but they have been little explored. Towards the north of Tassisudon Mr. Saunders observed a singular rock, forming in front six or seven angular semi-pillars of great circumference, and some hundred feet in height†. This natural curiosity was in part detached from the mountain, and projected over a considerable fall of water, which added much to the grand picturesque appearance of the whole. He adds that the rock is laminated, and might be formed into slate; and iron stones being found in the vicinity, it is probable that these pillastres may, like those of basalt, arise from the influence of that metal.

Before closing this account, it must be observed, that there is a district to the north-west of Cashmir, called Little Tibet, and which is supposed to contain the chief source of the Indus. But of this country, which is also represented as a portion of the Chinese empire, little or nothing is known; and even its very situation seems doubtful, for D'Anville in his map of Asia, has placed it to the north-east of Cashmir, thus representing it as the north-west extremity of Tibet proper. But Little Tibet is probably on the north and north-west of Cashmir, being divided from Great Tibet by a high mountainous ridge, and yet a higher chain, that of Belur, from Great Bucharia. It is said to be a very mountainous and poor country, pervaded by the Indus, and in the north full of forests. The capital is Ascardu; and further to the north is Schakar, as already mentioned in the observations on the boundaries of Great Tibet. Temir-kand, or the fortress of iron, seems to command the pass between Great and Little Tibet: and the two Gangas of the Chinese maps (supposed sources of the Ganges) are probably rivers which join the Indus from the east.

* Turner, 406. † Ib. 398.

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JAPAN.

CHAPTER I.

HISTORICAL GEOGRAPHY.

NAMES.—EXTENT.—ORIGINAL POPULATION.—PROGRESSIVE GEOGRAPHY.—HISTORICAL EPOCHS.—ANTIQUITIES.

THE kingdom, or, as it is by some styled, the empire of Japan, has by most geographers been classed among the Asiatic isles, and has in consequence been treated with more brevity than its importance demands. For, excepting China, no existing Asiatic monarchy can aspire to superior rank, or is more calculated to excite rational curiosity, from the singularity of its government, abundant population, progress in the arts of life, and peculiar manners of the people. The Japanese islands may in some measure, be compared with Great Britain and Ireland, forming a grand insular power, near the eastern extremity of Asia, like that of the British isles near the western extremity of Europe. Nor are ample modern materials wanting; for the honest and industrious Kæmpfer has given us a description which sometimes rivals the Britannia of Camden in minuteness and precision; and Thunberg, an able naturalist, has in his travels produced a supplement; so that few deficiencies remain in our knowledge of this interesting country.

NAMES. Marco Polo, the father of modern Asiatic geography, mentions Japan by the name of Zipangri or Zipangu. The inhabitants themselves call it Nipon, or Nifon; and the Chinese Sippon, and Jepuen.

EXTENT. This empire extends from the thirtieth to the forty-first degree of north latitude; and according to the most recent maps, from the 131st to the 142d° of east longitude from Greenwich. Besides many smaller isles, it presents two considerable ones in the south-west, that of Kiusiu (also termed Saikokf or the western country); and that of Sikokf. But by far the most important island is that of Nipon, to the north-east of the two former. The geography of Kæmpfer has been corrected by recent voyages, according to which the length of

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Kiusiu, from north to south, is about two degrees, or 140 British miles, the greatest breadth about ninety. Sikokf is about ninety British miles in length, by half the breadth. The grand isle of Nipon is in length from south-west to north-east, not less than 750 British miles; but is so narrow in proportion, that the medial breadth cannot be assumed above eighty, though in two projecting parts it may double that number. These islands are divided into provinces and districts, as usual in the most civilized countries.

To the north of Nipon is another large isle, that of Jesso, or Chicha, which, having received some Japanese colonies, is generally regarded as subject to Japan; but being inhabited by a savage people, is rather considered as a foreign conquest, than as a part of this civilized empire.

Original Population. The original population of Japan has been little illustrated; but the Japanese seem to be a kindred race with the Chinese; though, according to Kæmpfer, the languages be radically distinct. But if compared with that of Corea, the nearest land, and the latter with the Chinese, perhaps a gradation might be observable. The Japanese may have migrated from the continent, when both the Chinese and themselves were in the earlier stages of society; and the complete insular separation may have given rise to a language rendered peculiar by the progress of a distinct civilization.

Progressive Geography. Before the account published by Kæmpfer, Japan had been imperfectly explored by the Portuguese; and since 1730, the date of Kæmpfer's publication, many important improvements have been made, that author having failed in an exact delineation of the empire, which he chiefly derived from crude Japanese maps, and having erred so grossly as to confound the isle of Jesso with Kamchatka, from which besides the great difference in longitude, it is distant about six degrees, or 390 geographical miles! These faults are not indicated to upbraid this industrious writer, who, like all others, must only be estimated by the state of knowledge, when he wrote, but for the information of those who, unaware of the daily progress of geography, repose an undue confidence on antiquated authorities.

Historical Epochs. The history of their own country is universally studied by the Japanese; and Kæmpfer has produced an elaborate abstract, divided into three epochs, the fabulous, the doubtful, and the certain.

The first extends beyond the judaic era of the creation, when the empire is fabled to have been governed by seven great celestial spirits successively; and the last having wedded a goddess, there succeeded a race of five demigods, one of which is said to have reigned 250,000 years, while the last reigned more than 800,000!

The second or uncertain epoch is by Kæmpfer interwoven with the Chinese history; this part of his work demonstrating that the Japanese themselves at least acknowledge their government and civilization to have been derived from China. Sin Noo one of these Chinese monarchs, admitted by the Japanese into their annals, is represented with the head of a bull, or with two horns, as having taught the use of

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agriculture and herds*; perhaps the simple and natural origin of the Jupiter Ammon, and similar images of classical antiquity.

The third or certain period begins with the hereditary succession of the ecclesiastic emperors, from the year 660 before the Christian era, to the year of Christ 1585, during which 107 princes of the same lineage governed Japan. At the last period the secular princes assumed the supreme authority. In general the reigns are pacific; though at very distant intervals the Mandshurs and Coreans occasionally invaded Japan, but were always defeated by the valour of the inhabitants. In the reign of Gouda, the ninetieth Dairi, or spiritual emperor, the Monguls under Mooko attempted a grand invasion of Japan, after having conquered China about fourteen years before. The number of small vessels is exaggerated to 4000, and that of the army to 240,000; and it is probable that numerous Chinese junks contained a formidable army of Monguls. But they were dispersed and almost wholly destroyed by a furious tempest, which the Japanese piously ascribed to the gods their protectors. In 1585 the generals of the crown, or secular emperors, who were also hereditary, assumed the supreme power: the Dairis being afterwards confined, and strictly guarded, that they might not reassume their ancient authority.

Antiquities. The temples and palaces being constructed of wood, few monuments of antiquity can remain. Some of the castles of the nobility have walls of earth or stone; but the most ancient relics are probably the coins and idols.

* Kæmpfer, i. 231. French translation.

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CHAPTER II.

POLITICAL GEOGRAPHY.

RELIGION.—GOVERNMENT.—LAWS.—POPULATION.—COLONIES.—ARMY.—NAVY.—REVENUES.—POLITICAL IMPORTANCE AND RELATIONS.

RELIGION. THE established religion of Japan is a polytheism, joined with the acknowledgment of a supreme creator. There are two principal sects, that of Sinto and that of Budsdo. The first acknowledges a supreme being, far superior to the little claims and worship of man, whence they adore the inferior deities as mediators, the idea of a mediator being indispensable in almost every form of religion. They believe that the souls of the virtuous have a place assigned to them immediately under heaven, while those of the wicked wander in the air till they expiate their offences. The transmigration of souls is of course unknown. They abstain from animal food, detest bloodshed, and will not touch any dead body*.

"Although the professors of this religion be persuaded that their gods know all things, and that therefore it is unnecessary to pray to them upon any occasion, they have nevertheless both temples and certain stated holidays. Their gods are called *Sin* or *Kami*, and their temples are styled *Mia*. These temples consist of several different apartments and galleries, with windows and doors in front, which can be taken away and replaced at pleasure, according to the custom of the country. The floors are covered with straw mats, and the roofs project so far on every side as to overhang an elevated path, in which people walk round the temple. In those temples one meets with no visible idol, nor any image which is designed to represent the supreme invisible being: though they sometimes keep a little image in a box, representing some inferior divinity to whom the temple is consecrated. In the centre of the temple is frequently placed a large mirror, made of cast metal well polished, which is intended to remind those that come to worship, that in like manner as their personal blemishes are faithfully pourtrayed in the mirror, so do the secret blemishes and evil qualities of their hearts lie open and exposed to the all-searching eyes of the immortal gods†."

The priests are either secular or monastic: the latter alone being entrusted with the mysteries. The festivals and modes of worship are cheerful and even gay; for they regard the gods as beings who solely delight in dispensing happiness. Besides the first day of the year, and

* Thunberg, iv. 19. † Ib. iv. p. 21.

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three or four other grand festivals, the first day of the month is always kept as a holiday. There are several orders of monks and nuns, as in the Roman Catholic system: but human nature is every where the same.

The sect of Budsdo was imported from Hindostan, being the same with that of Budha or Boodh, reported to have been born in Ceylon about 1000 years before the birth of Christ. Passing through China and Corea, it has been mingled with foreign maxims, but the tenet of the metempsychosis remains; wicked souls being supposed to migrate into the bodies of animals, till they have undergone a due purgation.

The doctrine of their philosophers and moralists is called Shuto, and partakes of the Epicurean, though it acknowledges, with Confucius, that the purest source of pleasure is a virtuous life. This sect admits a soul of the world; but does not allow inferior gods, temples, nor religious forms. By a singular inconsistency the persecution of the christians greatly diminished the number of the Epicureans; who, in order to avoid suspicion, are eager to return to the common religion of the country.

Soon after the discovery of this country by the Portuguese, Jesuitic missionaries arrived in 1549: and their successors continued to diffuse their doctrine till 1638, when 37,000 christians were massacred. Several persecutions had formerly taken place; and in 1590, upwards of 20,000 are said to have perished. The pride and avarice of the Portuguese conspired with the vain ambition of the Jesuits, (who, not contented with their station, endeavoured to introduce themselves into the governing councils of the nation,) first to contaminate and render odious the religion which they professed, in its pure principles essentially opposite to such views, and afterwards to produce this melancholy catastrophe; the existence of the christian faith being through such perversion found incompatible with that of a state otherwise universally tolerant. Since that memorable epoch, christianity has been held in supreme detestation; and the cross, with its other symbols, are annually trampled under foot; but it is a fable that the Dutch are constrained to join in this ceremony.

Government. The Kubo, or secular emperor, is now sole monarch of the country; but till near the end of the seventeenth century, the dairis, pontiffs, or spiritual monarchs, held the supreme authority, being appointed by the high ecclesiastical court according to their laws of succession. Yet occasionally the appointment has been controverted; and Japan has been ravaged by many civil wars. The ecclesiastical dignities were of six orders, some belonging to particular offices, others merely honorary. The secular prince is accustomed to confer, with the consent of the dairi, two honorary ranks, equivalent to our noblemen and knights. The ecclesiastical court is chiefly occupied with literary pursuits, the dairi residing at Miaco; and his court remains, though not in his former splendor.

The government of each province is intrusted to a resident prince, who is strictly responsible for his administration, his family remaining at the emperor's court as hostages; and he is himself obliged to make an annual appearance, the journey being performed with great pomp, and accompanied with valuable presents. The emperor, as in the feu-

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dal times of Europe, derives his chief revenue from his own estate, consisting of five inferior provinces, and some detached towns. Each prince enjoys the revenues of his fief or government, with which he supports his court and military force, repairs the roads, and defrays every civil expense. The princes of the first dignity are styled Daimio, those of inferior rank Siomio. They are generally hereditary, but the Siomios are not only obliged to leave their families at Jedo the capital, but to reside there themselves for six months in the year.

There do not seem to be any traces of a national council, or even assembly of nobles, which seems indeed foreign to the Asiatic manners, though it may be traced in ancient Persia. The cause of this defect has not been investigated, though it necessarily spring from a despotic form of government, universal in the civilized countries of Asia; where the ebullition of the passions seems too strong for cool debate or senatorial eloquence, and difference of opinion would inflame into mutual slaughter. The singular constitution of Japan therefore consists of an absolute hereditary monarchy, supported by a number of absolute hereditary princes; whose jealousy of each other's power conspires with domestic pledges, to render them subservient to one supreme.

Laws. The superiority of the laws of Japan over those of Europe, has been loudly proclaimed by Kæmpfer. The parties themselves appear, and the cause is determined without delay. Yet Kæmpfer's information on this head is defective, as he does not mention any code of laws, and chiefly dwells on the advantages arising from the exclusion of strangers from the kingdom, it being also death for any Japanese to leave his country. Thunberg informs us that the laws are few, but rigidly inforced, without regard to persons, partiality or violence*. Most crimes are punished with death, fines being considered as partiality to the rich; but the sentence of death must be signed by the privy council at Jedo. Parents and relations are made answerable for the crimes of those whose moral education they ought to have superintended. The police is excellent, there not only being a chief magistrate of each town, called nimban, but an ottona or commissary of each street, elected by the inhabitants to watch over property and tranquillity. Two inhabitants in their turn nightly patrole the street to guard against fire.

The best proof that the laws are salutary is that few crimes are committed, and few punishments are inflicted. The brief code, according to Thunberg, is posted up in every town and village, in large letters, on a spot surrounded with rails†.

Population. The population of the Japanese empire, like that of other Asiatic states, cannot be treated with much precision. Ancient and modern travellers seem to have passed this subject in silence. Perhaps the Japanese have some prejudice against any enumeration, or chuse from political views to bury it in obscurity; while the Chinese, with like design, may perhaps magnify the population of their country. All travellers however agree that the population is surprising, and though a great part of the country be mountainous, yet

* iv. 64. † iv. 72.

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even the mountains are the objects of obstinate cultivation. Thunberg observes, that the capital Jedo, is said to be sixty-three British miles in circumference, and at any rate rivals Pekin in size*. Many of the villages are three quarters of a mile in length; and some so long that it requires several hours to walk through them: and these large villages frequently occur at very short distances. Kæmpfer says, that the number of people daily travelling on the highways is inconceivable, and the *tokaido*, the chief of the seven great roads, is sometimes more crowded than the most frequented streets of European capitals†. In another passage he expresses his amazement at the extraordinary population, the highways passing through almost continuous villages, while the capitals, Jedo and Miaco, equal in size any cities in the world. Varenius the geographer, who justly esteemed this country so interesting as to deserve a particular description, has, from the best authorities, estimated the standing army maintained by the princes and governors at 368,000 infantry, and 38,000 cavalry: while the Kubo, or emperor, maintains 100,000 foot, and 20,000 horse: thus constituting in all a regular force of 468,000 infantry, and 58,000 cavalry‡. It is probable that this army does not bear a greater proportion to the population, than that of an European state in time of peace; and as the army doubles that of France under the monarchy, so the population may also be double. Perhaps a more safe estimate may be formed, by supposing the population of Japan to equal that of China; and the former country being about one tenth part the size of the latter, the population will be about 30,000,000.

Colonies. Though the national laws prohibit emigration, yet where the Japanese make conquests, they seem to regard the country as their own, and to form settlements without hesitation. Hence Japanese colonies may be found in Jesso, and other adjacent isles: nay, even in isles of the Indian Archipelago, so that their laws, as in China, seem rather theoretic.

Army. The army has been already mentioned as amounting to more than half a million; and the character of the people is singularly brave and resolute.

Navy. The navy, like that of the other oriental powers, is beneath notice. The Japanese vessels are open at the stern, so that they cannot bear a boisterous sea; and though, like the Chinese, they have the use of the compass, yet it is inconceivable how they could, in former times, make voyages, as is asserted, to Formosa, and even to Java.

Revenues. The revenues of this empire are minutely stated by Varenius, according to princes and provinces, the sum total being 2834 tons of gold, in the Flemish mode of computation; and taking the ton at only 10,000*l.* sterling, the amount would be 28,340,000*l.* sterling, besides the provinces and cities which are immediately subject to the emperor. These revenues must not however be considered as national, being only yielded in coin to the various princes. The emperor, however, besides the large revenues of his provinces, has a considerable treasure in gold and silver, disposed in chests of 1000 taels,

* iii. 382. ii. 645. and iii. 318. ‡ Descr. Jap. Cap. ix.

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or thayls, each being nearly equal in value to a Dutch rix dollar, or about four shillings and four pence English money. As the phrenzy of mankind generally expends the public revenue in the support of an army, the real weight of the Japanese resources may best be estimated from the numerous army supported.*

Political Importance and Relations. Japan maintains no political relations with any other state; and consisting of islands without a navy, its external political importance is of course confined, if not annihilated. No danger is to be apprehended except from Russia; and it seems doubtful whether, even supposing the Russians capable of conducting a sufficient force through the wilds of Siberia, European weapons and tactics would prevail against prodigious numbers and determined valour. To Russia indeed the conquest might be important as securing numerous havens, and a consequent powerful fleet in the rear of her Asiatic possessions; but the unavoidable interference of China, justly apprehensive of the consequence, would prove an invincible obstacle; nor is it likely that the kingdom and laws of Japan will be overturned; or her vast population wafted to various regions of the globe, in subservience to Russian ambition.

* Thunberg, iv. 8. computes the revenue of the crown lands at more than forty-four thousands of millions of sacks of rice, each sack being about twenty pounds weight. But this calculation implies nothing to an European reader.

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CHAPTER III.

CIVIL GEOGRAPHY.

MANNERS AND CUSTOMS.—LANGUAGE.—LITERATURE.—EDUCATION.—CITIES AND TOWNS.—EDIFICES.—ROADS.—INLAND NAVIGATION.—MANUFACTURES AND COMMERCE.

A RECENT traveller has described the persons of this singular people in the following terms*. "The people of this nation are well made, active, free, and easy in their motions, with stout limbs, although their strength is not to be compared to that of the northern inhabitants of Europe. The men are of the middling size, and in general not very corpulent; yet I have seen some that were sufficiently fat. They are of a yellowish colour all over, sometimes bordering on brown, and sometimes on white. The lower class of people, who, in summer when at work, lay bare the upper part of their bodies, are sun-burnt, and consequently brown. Ladies of distinction who seldom go out in the open air without being covered, are perfectly white. It is by their eyes that, like the Chinese, these people are distinguishable. These organs have not that rotundity which those of other nations exhibit, but are oblong, small, and sunk deeper in the head, in consequence of which these people have almost the appearance of being pink-eyed. In other respects their eyes are dark brown, or rather black; and the eye-lids form in the great angle of the eye a deep furrow, which makes the Japanese look as if they were sharp sighted, and discriminates them from other nations. The eye-brows are also placed somewhat higher. Their heads are in general large, and their necks short; their hair black, thick, and shining, from the use they make of oils. Their noses, though not flat, are yet rather thick and short.

MANNERS AND CUSTOMS. This highly civilized people must of course display great diversity of character, but the virtues far preponderate over the vices; and even their pride is useful, as it prevents them from stooping to the mean tricks of the maritime Chinese. Though polygamy be allowed, yet one wife only is acknowledged, the others being merely concubines. Marriages are conducted by the parents, or relations; and domestic tranquillity is insured by the wife's being under the absolute disposal of her husband, the laws allowing no claim whatever in case she incur his displeasure†. Hence, though the women be not confined, examples of infidelity are very rare. In case of separation the wife is condemned to the ignominy of having her head always shaven. The marriage ceremony is performed before an

* Thunberg, iii. 251. † Varenius, 59

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altar, by the bride's lighting a torch from which the bridegroom kindles another.

The bodies of the distinguished dead continue to be burned, while others are buried. Periodical visits are paid to the tombs, besides the festival of lanthorns, held as in China, in honour of the departed.

The Japanese use great varieties of food and sauces. The master or mistress of the house is not harassed with the trouble of carving, the meat being previously cut into small pieces, served up in basons of porcelain, or japanned wood. The general drink is sacki, or beer made of rice; which last article also supplies the place of bread. They use many kinds of vegetables and fruits. The use of tea is also universal; but wine and spiritous liquors are unknown. The use of tobacco seems to have been introduced by the Portuguese; and the practice of smoking has become general.

The houses of the Japanese are of wood, coloured white, so as to resemble stone; and though roomy and commodious, never exceed two stories in height, the upper serving for lofts and garrets, and seldom being occupied*. Each house forms but one room, which may be divided into apartments at pleasure, by moveable partitions sliding in grooves. They use neither chairs nor tables, sitting on straw mats, the meal being served apart to each on a small square wooden salver. In Jedo the houses are covered with tiles; but the general fabric is a frame work of wood, split bamboos, and clay.

The dress consists of trowsers; and what we call night gowns, or loose robes of silk or cotton, are universally worn by both sexes†. These are fastened by a girdle; the number being increased according to the coldness of the weather; and in cases of sudden warmth thrown from the shoulders and remain suspended by the girdle. Stockings are not used; and the shoes are commonly of rice straw. The men shave the head from the forehead to the nape, but the hair on the sides is turned up, and fastened at the crown of the head: conical hats made of grass are worn on journies, but the fashion of wearing the hair forms the common economical covering of the head: and seems calculated, like the heavy head dress of the ancient Egyptians, to resist the force of too potent a sun.

The Japanese festivals, the games, and theatrical amusements, equal those of most civilized nations. Dancing girls are common, as in other oriental countries; and the introduction of boys indicates an abominable propensity here, as in China, neither reputed a crime nor a singularity.

Language. Thunberg has published a curious vocabulary of the Japanese language, which seems indeed to have little connexion with the monosyllable speech of the Chinese. There are also dictionaries drawn up by the Jesuits.

Literature. In the sciences and literature the Japanese yield to few of the oriental nations. This sensible people studies house-keeping, or domestic economy, as an indispensable science; and next to this every Japanese is versed in the history of his country‡. Astronomy is cultivated, but has not arrived at much perfection. They

* Thunberg, iii. 112. † Ibid. 267. ‡ Ibid. iv. 54.

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survey with tolerable accuracy; and their maps are as exact as their imperfect instruments will permit. The art of printing is ancient, but they use blocks not moveable types, and only impress one side of the paper. Some of their arts and manufactures even surpass those of Europe. There are excellent workmen in iron and copper; and to no eastern country do they yield in manufactures of silk and cotton; while in varnishing wood they are well known to have no equals. Glass is also common; and they even form telescopes. The porcelain is deemed superior to that of China. Their swords display incomparable skill; and many varieties of paper are prepared from the bark of a species of mulberry tree. The celebrated varnish is from the *rhus vernix*.

Education. There are many schools in which the children are taught to read and write; their education being accomplished without the degradation of personal chastisement, while courage is instilled by the repetition of songs in praise of deceased heroes.

Cities and Towns. The capital city of the Japanese empire is Jedo, centrically situated on a bay in the south-east side of the chief island Nipon. The houses never exceed two stories, with numerous shops towards the streets. The harbour is so shallow that an European ship would be obliged to anchor at the distance of five leagues. A fire happened in this city in the year 1772, which is said to have consumed six leagues in length, and three in breadth: and earthquakes are here familiar, as in other regions of Japan. The emperor's palace is surrounded with stone walls, and ditches with drawbridges; forming of itself a considerable town, said to be five leagues in circumference*. In this, and similar instances of oriental population and extent, though the best authorities be followed, yet the reader may, with the author, suspend his belief. The Japanese affirm, that Jedo would occupy a person twenty-one hours to walk around its circumference, which might thus amount to about twenty-one leagues: that is seven leagues in length, by five in breadth. A large river, not named by Kæmpfer, passes through the capital, and besides the wide ditches of the palace, supplies several canals. There are no walls nor fortifications, which are unknown in Japanese cities: but there are many splendid houses of the numerous princes. As Europeans have here little freedom, the accounts given by Kæmpfer and Thunberg are little satisfactory.

Miaco. Miaco, the spiritual capital, and second city of the empire, is placed in an inland situation, about 160 miles south-west from Jedo, on a level plain. Yet it is the first commercial city, and is celebrated for the principal manufactures. It is also the seat of the imperial mint: and the Dairi's court being literary, all books are printed here. Kæmpfer informs us, that, upon an enumeration taken in 1674, the inhabitants were found to amount to 405,642: of whom were males 182,070; and 223,572 females; without including the numerous attendants of the Dairi. But they are divided according to sex; and the children probably excluded.

Nagasaki. Nagasaki being the nearest city to the Dutch factory in the isle of Dezima, has of course attracted the particular

* Thunberg, iii. 139.

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attention of our travellers. The harbour is the only one in which foreign ships are permitted to anchor, a privilege now enjoyed only by the Dutch and Chinese. The Portuguese trade raised this place from a mere village, to its present size and consequence.

The other cities in the Japanese empire may amount to thirty or forty; but except those on the route from Nagasaki to the capital, few have been explored by European travellers. Osacca, and Sakai, boast the name of imperial cities.

Edifices. Of the principal edifices of the Japanese some idea may be formed from the descriptions which our travellers give of the imperial palace, which, like those of the Chinese, consists of many dwellings occupying an immense space. The saloon of the hundred mats is 600 feet in length by 300 in breadth. There is a high square tower, (a mark of dignity not permitted here to the grandees though usual at their own courts,) which consists of several stages richly decorated; and most of the roofs are ornamented with golden dragons. The pillars and ceilings are of cedar, camphor, and other precious woods; but the only furniture consists of white mats, fringed with gold. The emperor gives audience in a smaller chamber where he is seated on carpets.

Roads. The roads seem to be maintained in excellent order; but the mountainous nature of the country has prevented the formation of canals, which, indeed the universal proximity of the sea, renders almost unnecessary; otherwise so sensible and industrious a nation would doubtless have imitated the Chinese example.

Manufactures and Commerce. The chief manufactures of Japan have been already mentioned in the account of arts and sciences. The inland commerce is very considerable, being free and exempted from imposts*. The harbours are crowded with large and small vessels; the high roads with various goods; and the shops well replenished. Large fairs are also held in different places, to which there is a great concourse of people. The trade with China is the most important, consisting of raw silk, sugar, turpentine, drugs, &c. while the exports, are copper in bars, lackered ware, &c. Thunberg represents the profits of the Dutch trade as very inconsiderable, so that the company only employed two ships. The Japanese coins are of a remarkable form, the gold being called Kobangs. The silver called Kodama sometimes represents Daikok, the god of riches, sitting upon two barrels of rice, with a hammer in his right hand, and a sack at his left. The Seni, of copper or iron, are strung like the Chinese pieces of a similar value.

* Thunberg, iv. 106.

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CHAPTER IV.

NATURAL GEOGRAPHY.

CLIMATE AND SEASONS.—FACE OF THE COUNTRY.—SOIL AND AGRICULTURE.—RIVERS.—LAKES.—MOUNTAINS.—VOLCANOS.—FORESTS.—BOTANY.—ZOOLOGY.—MINERALOGY.—ISLES.

CLIMATE AND SEASONS. THE heat of summer is in Japan extremely violent, and would even be insupportable, were not the air cooled by the sea breezes. Equally severe is the cold in winter, when the wind blows from the north, or north-east, and seems to be impregnated with particles of ice from the Arctic ocean. The weather is changeable throughout the year; and there are abundant falls of rain, especially in the satsaki, or rainy months, which begin at Midsummer.* This copious moisture is the chief cause of the fertility of Japan, and its consequent high degree of population.

Thunder is not unfrequent; and tempests, hurricanes, and earthquakes are very common. Thunberg has published his thermometrical observations, from which a clear idea may be formed of the climate. The greatest degree of heat, at Nagasaki, was ninety-eight degrees, in the month of August; and the severest cold, in January, thirty-five degrees. The thunder, in the summer months, is generally during the night; and the snow will remain on the ground some days even in the south.

FACE OF THE COUNTRY. Though there be plains of considerable extent, as appears from the description of Miaco, yet Thunberg assures us, that the whole country consists of mountains, hills, and valleys, the coast being mostly rocky and precipitous, and invested with a turbulent sea. The face of the country is also diversified with many rivers, and rivulets, by numerous singular tribes of vegetation; and generally excites the social ideas of industry, more calculated, perhaps, to delight the heart, than the wild appearances of deserted nature.

SOIL AND AGRICULTURE. The soil in itself may be said to be rather barren; but the prolific showers conspire with labour and manure to overcome even this obstacle. Thunberg† has presented us with some curious details concerning Japanese agriculture, a science in the highest estimation with this sensible people, so that, except the most barren and untractable mountains, the earth is universally cultivated; and even most of the mountains and hills. Free from all feudal and ecclesiastical impediments, and highly respected by the other social

* Thunberg, iii. 234. † iv. 89.

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classes, the farmer cultivates the soil with freedom and industry. There are no commons; and if any portion be left uncultivated, it may be seized by a more industrious neighbour. But when Thunberg praises the want of meadows, he seems to err against European rules, which consider cattle as necessary for manure. The Japanese mode is to form a mixture of excrements of all kinds, with kitchen refuse, which is carried in pails into the field, and poured, with a ladle, upon the plants, when they have attained the height of about six inches, so that they instantly receive the whole benefit. The weeding is also carried to the utmost degree of nicety.

The sides of the hills are cultivated by means of stone walls, supporting level plats, sown with rice, or esculent roots.* "Thousands of these beds adorn most of their mountains, and give them an appearance which excites the greatest astonishment in the breasts of the spectators." When we consider that the climate of Japan is exposed to heavy rains, we are the more led to blame the want of industry in the Highlands of Scotland, and some other mountainous districts of Europe. Rice is the chief grain; buck-wheat, rye, barley, and wheat being little used. A kind of potato† is abundant; with several sorts of beans and peas, turnips, cabbages, &c. The rice is sown in April, and gathered in November: in which last month wheat is sown, and reaped in June. The barley also stands the winter. From the seed of a kind of cabbage, lamp oil is expressed; and several plants are cultivated for dying; with the cotton shrubs, and mulberry trees, which last feed abundance of silk worms. The varnish and camphor trees, the vine, the cedar, the tea tree, and the bamboo reed, not only grow wild, but are planted for numerous uses.

Rivers. The rivers of Nipon have not been delineated with much care. Among the few named are the Nogafa, and the Jedogawa, which passes by Osaka, where it is crowned with several bridges of cedar, from 300 to 360 feet in length. The river Ojingava‡ is one of the largest and most dangerous in the country, though not subject, like the others, to swell during rains. Fusigava is also a large and rapid river; as is that called Sakgawa. The largest river seems to be the Jodo, or, perhaps, in the German pronunciation, Yodo, which flows S. W. from the central lake of Oitz; but our geography of the Japanese empire is far from being complete. Among the most important rivers Kæmpfer names the Ujin, (the Ojin of Thunberg); the Oomi, reported, by Japanese history, to have burst from the ground in one night; and the Aska.‖

Lakes. One of the chief lakes seems to be that of Oitz, which emits two rivers, one towards Miaco, the other towards Osaka;

* Thunberg, 83.

† It is the Batatas (convolvulus edulis) in the time of Queen Elizabeth imported from Spain to England; and often confounded with the potato, (solanum tuberosum) which is rare in Japan.

‡ The word *Gawa*, or *Gava*, seems to imply a river, in which case the repetition is absurd, though often used in the geography of countries little known.

‖ Thunberg, i. 163.

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and it is said to be fifty Japanese leagues in length, each about an hour's journey on horseback; but the breadth is inconsiderable.

Mountains. The principal Japanese mountain is that of Fusi, covered with snow almost throughout the year. The Fakonie mountains are in the same quarter, surrounding a small lake of the same name.* Many of the mountains are overgrown with wood; and others cultivated as before explained. There are several volcanos; and, in general, they abound with evergreen trees, and crystalline springs.

Volcanos. Near Firando there is a volcanic island, nor are others unknown in the surrounding seas.† In the province of Figo there is a volcano, which constantly emits flames; and another, formerly a coal mine, in the province of Tsikuser. The course and extent of the various ranges of mountains have not been indicated.

Jesan. Near the lake of Oitz is the delightful mountain of Jesan; which is esteemed sacred, and is said to present not less than three thousand temples.‡

Forests. In the high state of cultivation few forests can appear; except those already mentioned as decorating the sides of mountains.

Botany. The vegetable treasures of Japan are numerous, and have been ably explored by Kæmpfer and Thunberg: on account, however, of the enormous population of the country, and the absolute necessity of paying the utmost attention to the introduction of whatever may contribute to human sustenance, it is not easy to ascertain how far several of the esculent plants, cultivated here, are truly indigenous. There are many points of resemblance between the floras of China and Japan, and this similarity has probably been strengthened by a mutual interchange of useful vegetables; if, indeed, both countries have not rather derived some of their most valuable plants from Cochin-China, or the Philippine islands: the ginger, the soy bean, black pepper, sugar, cotton, and indigo, though perhaps natives of the more southern regions of Asia, are cultivated here with great success, and in vast abundance. The Indian laurel and the camphor tree are found in the high central parts of Japan, as is also the rhus vernix, from the bark of which exudes a gum resin, that is supposed to be the basis of the exquisitely beautiful and inimitable black varnish, with which the inlaid cabinets, and other articles of Indian luxury, are covered. Besides the common sweet, or China orange, another species, the citrus japonica, is found wild, and almost peculiar to this country: two kinds of mulberry are met with, both in an indigenous and cultivated state, the one valuable, as the favourite food of the silk worm, the other esteemed for the white fibres of its inner bark, which are manufactured into paper. The larch, the cypress, and weeping willow, found in all the warm regions, between Japan and the Mediterranean, here arrive at the extremity of their boundary to the east: the same may be said of the opium poppy, white lily, and jalap (mirabilis jalapa). Among the species peculiar to Japan may be mentioned alctris japonica, a stately bulbous rooted plant, camellia japonica, and volkameria japonica. The trumpet-flower (bignonia catalpa) is common to this part of Asia and

* Thunberg, iii. 164. † Kæmpfer, i. 166. ‡ Ib. iii. 28.

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Peru; in which circumstance it resembles the epidendrum vanilla, whose berries form an article of commerce, being largely used in the preparation of chocolate. The mimosa arborea, and tallow tree, the plantain, the cocoa nut tree, and two other palms, the chamærops excelsa, and cycas circinalis, adorn the woodland tracts, especially near the sea shore, by the variety of their growth and foliage, while the uncultivated swamps by the sides of the rivers are rendered subservient to the uses of the inhabitants, by the profusion and magnitude of the bamboos, with which they are covered.

Zoology. It is not a little remarkable that neither sheep, nor goats are found in the whole empire of Japan; the latter being deemed mischievous to cultivation; while the abundance of cotton and silk recompense the want of wool. Swine are also deemed pernicious to agriculture; and only a few appear in the neighbourhood of Nagasaki, probably introduced by the Chinese.* There are, in general, but few quadrupeds; the number of horses in the empire being computed, by Thunberg, as equal to those of a single Swedish town. Still fewer cattle are seen; and the Japanese neither use their flesh nor their milk, but employ them only in ploughing, or drawing carts. The food consists almost entirely of fish and fowl, with vegetables. Hens and common ducks are domesticated, chiefly on account of their eggs. A few dogs are kept from motives of superstition; and the cats are favourites of the ladies.

The wolf appears in the northern provinces, and foxes in other parts; these last being universally detested, and considered as demons incarnate. The curious reader will find a tolerably ample account in Thunberg's work of the natural history of this singular country; from which shall be extracted the following idea of its mineralogy.

Mineralogy. "That the precious metals, gold and silver, are to be found in abundance in the empire of Japan has been well known, both to the Portuguese, who formerly exported whole ship loads of them, and to the Dutch in former times. Gold is found in several parts; and, perhaps, Japan may, in this respect, contest the palm with the richest country in the world: but in order that this metal may not lose its value, by becoming too plentiful, it is prohibited to dig more than a certain stated quantity; not to mention that no metallic mine, of any kind whatever, can be opened and wrought without the emperor's express permission. When this permission is obtained, two-thirds of the produce are the portion of the emperor, and the proprietor of the land receives one third for his expenses. Gold is found in small quantities in the sand; but the chief part is extracted from cupreous pyrites, dissolved by brimstone. The finest gold, together with the richest gold mine, I was told, are found on the largest of the Nipon islands, near Sado. The next in quality to this is that which is found in Surunga. Besides these places, it is known, for a certainty that several rich gold mines are to be found in Satsuma; as likewise in Tsikungo; and in the island of Amakusa. It is used for the mint gilding, and embroidery; but is not carried out of the country.

* Thunberg, iv. 95.

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"Silver must formerly have been found in much greater plenty than at present, as a large quantity of it was then exported from this country. The Japanese consider it as being more rare than gold, although the latter metal is dearer. They now likewise received in barter a considerable sum of Dutch Ducatoons from the Dutch company. It is said to be found in the province of Bingo; and in the more northerly parts towards Kattami, as I was informed, very rich silver mines are to be met with. Independently of these places, the two islands which are called the Gold and Silver isles, (*Ginsima*, *Kinsima*), are said to contain a great quantity of both of these precious metals. Silver is used for coining and for plating.

"Copper is quite common in every part of the empire, and is richly impregnated with gold, constituting the main source of the wealth of many provinces. It was not only formerly exported in amazing quantities, but still continues to be exported both by the Dutch and Chinese merchants. The finest, and most malleable, is dug in Suruga, Atsingo, Kyno, Kuni. The last sort is esteemed to be the most malleable of any; whilst that from Suruga contains the greatest quantity of gold. A great number of copper mines are to be found in Satsuma, and at other places. Of this metal are made small pieces of money for change; it is used likewise for plating, for making utensils of Sowas, for pots, kettles, &c.

"Iron seems to be scarcer than any other metal in this country. It is found, however, in the provinces of Mimasaka, Bitsju, and Bisen. This they are neither fond of importing, nor yet of exporting it for sale. Of it they manufacture scymitars, arms, scissors, knives, and various other implements of which they stand in need.

"Of amber I had a present made me by my friends: they call it Nambu. It was of a dark, as well as of a light yellow colour, and likewise streaky. I was told also that it is found in this country.

"Brimstone is found in great abundance in Japan, especially upon a certain island near Satsuma. Pit-coal, I was informed, is likewise to be met with in the northern provinces. Red agate, with white veins, I saw several times made use of for the buttons, &c. of tobacco pouches, and medicine chests; which agate was most frequently cut in the shape of a butterfly, or some other animal."*

It may be added, from Kæmpfer, that brass is very rare, the calamine being brought from Tunquin; and beautiful tin is found in the province of Bungo, though, perhaps, this may be the white copper of the Chinese. Amber grease is now discharged from the list of mineral productions; but a reddish naphtha is sometimes found, and used in lamps. Neither antimony nor quicksilver have been discovered in Japan.

Thunberg also enumerates asbestos, porcelain clay, beautiful flesh coloured steatite, pumice, and white marble.†

There are several warm mineral waters, which the inhabitants use for various diseases; particularly those of Obamma, and those in the mountain of Omfen.‡ The natural curiosities of Japan have been

* Thunberg, iv. 102. † Ib. iii. 203. ‡ Kæmpfer, i. 176.

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little investigated, as Europeans have seldom visited the interior of the country.

Isles. There are many small isles dependent on Japan, particularly in the S. and E. among which is Fatfisio, the place of exile for the grandees. This, and the other small isles, are scarcely known, except by name.

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THE BIRMAN EMPIRE.

COMPRISING THE KINGDOMS OF AVA AND PEGU.

CHAPTER I.

HISTORICAL GEOGRAPHY.

NAME.—EXTENT.—BOUNDARIES.—ORIGINAL INHABITANTS.—PROGRESSIVE GEOGRAPHY.—MODERN HISTORY.

BEFORE the appearance of a recent interesting publication* little was known concerning this new empire; and geographers were constrained to detail the old accounts, which are little satisfactory.

NAME. The Birman empire derives its name from the Birmahs, who have been long known as a warlike nation in the region formerly styled INDIA BEYOND THE GANGES; the capital city of their kingdom being Ava, or Awa. Pegu is by the natives styled Bagoo;† being the country situated to the south of the former, and justly inferred to have been the Golden Chersonese of the ancients.

EXTENT AND BOUNDARIES. It is difficult to ascertain, with precision, the boundaries of the Birman empire. Mr. Symes informs us that "it appears to include the space between the ninth and twenty-sixth degree of north latitude; and between the ninety-second and 107th degrees of longitude east of Greenwich; about 1050 geographical miles in length, and 600 in breadth: these are the ascertainable limits, taken from the Birman accounts; but it is probable that their dominions stretch still further to the north. It should, however, be remarked, that the breadth often varies; and is in many places very inconsiderable on what is called the eastern peninsula."‡

The geography of what is called India beyond the Ganges, a vague name for the wide and various regions between Hindostan and China, is

* Syme's Account of the embassy to Ava. † Ib. i. 6. 8vo. edit.
‡ Ib. ii. 411.

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still defective. To the north the Birman empire is divided by mountains from Asam, a country little visited or known; and further to the east it borders on Tibet and China. On the west a range of mountains, and the little river Naaf, divide the Birman possessions from the British dominions in Bengal; and the limit is continued by the sea. But the southern and eastern boundaries remain rather obscure. If extended to the ninth degree of latitude, it will include a considerable portion of the grand Malaian peninsula to the vicinity of Bangri, or in other words the province of Tanaserim and city of Merghi, formerly regarded as part of Siam. The eastern boundary is yet more vague: if extended to the 107th degree of longitude, it might be said to include almost the whole of what is called India beyond the Ganges, as far as the mouths of the Japanese river in Cambodia; yet there seems no express evidence that Siam is regarded as a portion of the Birman empire; and if it were it would only extend to 103 degrees. Amidst this uncertainty it must suffice to observe that the Birman empire constitutes the fifth grand native power in Asia, since Hindostan and Persia have been divided, and may probably extend its authority over Laos and Cambodia, while it remains divided, by deserts and ranges of lofty mountains, from the united kingdoms of Cochin-China and Tunquin.

Original Population. The original population of this region has been little illustrated. The alphabet, literature, and religion, are derived from those of the Hindoos; but the language, the grand criterion of national origins, has not been regularly collated with those of the adjacent countries*.

Progressive Geography. The progressive geography of this territory becomes not a little interesting, as it has lately been shewn by M. Gossellin to constitute the utmost boundary of ancient knowledge in this quarter of the globe†. He observes, that what chiefly characterises the Golden Chersonese of Ptolemy is the mouth of a large river, which there divides itself into three branches before it join the sea. These channels appeared so considerable, that each of them bore the name of a river, the Chrysoana, the Palandas, and the Attabas. It must be remarked that Ptolemy gives no name to this river above its division; and that he does not indicate its source as he does that of the others. It also appears that he knew nothing of the interior of this country, since he does not determine the position of any place. It was inhabited by a nation of robbers, whence the passage through it was shunned, and the Indians, whom commerce led to the country of the Sinæ, followed a route to the north of this region. The other arguments of M. Gossellin, being founded on minute circumstances, shall be passed in silence; but, upon comparing Ptolemy's map with that of the country, there seems no manner of doubt that the Golden Chersonese is the southern part of the kingdom of Pegu, which may be considered as insulated by rivers. In the southern part of the Malaian peninsula, which has hitherto been regarded as the Golden Chersonese, the river Johr is so small a stream, that it could never have supplied the three important mouths noted by Ptolemy; and his delineation of the country of the Sinæ, stretching along a *western* sea, palpably cor-

* See vol. vi. of the Asiatic Researches.

† Geograph. des Grecs Analys. 129.

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responds with Tanaserim, while D'Anville's map so much contradicts that of Ptolemy, as to place the sea on the *east* of the Sinæ, and proceeding to the *northward*, instead of the *southward*. In short, there is no doubt, that though our ingenious French geographer in a subsequent work too much limited the ancient knowledge of Africa*, yet, in describing its Asiatic limits, his proofs almost amount to mathematical demonstration. Additional advantages might indeed have been derived from that truly eminent geographer, Mr. Dalrymple's map of India beyond the Ganges, of which a sketch is published in Colonel Syme's work, and from the additional labours of Mr. Arrowsmith, which give a different aspect to the rivers in this quarter, from what they bore in maps in 1790, when Gossellin published his Analysis of Greek Geography. As the river Berhampoota was totally unknown to Ptolemy, his ignorance of the northern part of Bengal may easily be conceived by the omission of that important and striking feature. The rivers he lays down between the mouths of the Ganges, and the Delta of the Golden Chersonese, amount to five; of which three appear in our maps, but we are ignorant of the southern part of Aracan, which probably contains the two others. The three chief mouths of the Irrawaddy, in Mr. Dalrymple's map, faithfully correspond even in the form and manner of division, with those in the Golden Chersonese of Ptolemy; and the bay to the south of Dalla seems the Perimulicus Sinus of the Greek geographer, the small river to the east of which is that of Sirian, or Pegu. It will follow that the large river Daona is that of Sitang: and the other six rivers, great and small, might be equally indicated down to the Coteiris of Ptolemy, that of Tanaserim in modern maps, which flowed to the south of the Sinæ. It is also evident that the ancient geographer knew nothing of the straits of Malacca, nor of the northern part of the great island of Sumatra; which must both have been well known, if the Malaian peninsula had been the Golden Chersonese of the ancients.

The isle of Iabadium, M. Gossellin supposes to be that called Dommel in modern maps; but, by D'Anville, in the Portuguese form, *Ilha do Mel*.

A curious question remains, whether the people to the south of Martaban, along the shore towards Merghi, be noted in Hindoo tradition for such advantages as distinguished the Sinæ of antiquity; while the city of Tanaserim (a word which means the tribe of Tana) corresponded with Thinæ. The violence of oriental revolutions will speedily ruin even the remains of former opulence, as is exemplified in the present state of Pegu; but as even when D'Anville published his map of Asia, this country was called Lower Siam, it must have partaken in the advantages of that ancient and civilized kingdom, the inhabitants of which are justly concluded to have been the Sinæ of antiquity.

After this long discussion it may seem unnecessary to dwell on any faint and dubious hints to be found in Marco Polo, and other writers of the middle ages. The first precise ideas concerning this part of the

* Recherches sur la Geographie des Anciens, 2 vols. 4to. The volumes relative to the ancient knowledge of Europe, if they have appeared, have not yet reached England.

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globe, were derived from the discoveries of the Portuguese, but the geography remains so imperfect that even D'Anville has erred in the delineation; and Mr. Syme's work leaves room for many illustrations and improvements, when future travellers shall investigate with care the countries beyond the Ganges*.

Modern History. The history of the Birman empire is detailed at some length in the introductory part of the recent publication; and as it displays the origin of a new and great Asiatic power, it may be interesting to present an abstract. Colonel Symes justly observes that little was known concerning these countries, till the Portuguese made themselves masters of Malacca early in the sixteenth century, and were afterwards succeeded by the Dutch, who became masters of the whole peninsula, and had a factory even at Ligor, which properly belonged to Siam. The Portuguese historians are prone to exaggeration, and their accounts have little claim to precision, while the Dutch are commonly dull and unscientific. From such sources, however, flowed the first knowledge of these countries, of Aracan, extending southward to Cape Negrais, and of Ava, the ancient capital of the Birmans, while their country at large is called Miama, being divided from the former by a ridge of lofty mountains, called Anoupec-tou-miou, or the great western hilly country. Pegu, or Bagoo, extended as far as Martaban, the city of Prome being its northern limit; while Siam adjoined on the east, extending south to Junkseilon a considerable isle, the Siamese calling themselves Tai, while their capital was Yoodiat. From the Portuguese accounts, it appears that the Birmans, a brave and warlike race, formerly subject to the king of Pegu, became afterwards masters of Ava, and caused a revolution in the former country about the middle of the sixteenth century, when they took Martaban, a subject of the extravagant fables of the notorious Mendez de Pinto, the sovereign of hyperbolic voyagers. The Portuguese continued to influence these countries till they were expelled by the Dutch, who obtained settlements in various parts of the Birman territory; while the English had factories at Sirian, and even at Ava.

The Birmans continued to exercise their supremacy over Pegu till about the year 1740, when a civil war arose, during which the British factory at Sirian was destroyed in 1744. By some European aids the Peguese, in 1750 and 1751, gained several victories over the Birmans; and, in 1752, Ava was besieged and taken; the last of a long line of Birman kings being reduced to captivity, but two of his sons escaped to Siam.

When Binga Della, king of Pegu, had completed the conquest of Ava, he returned to his own country, leaving his brother Apporaza to govern the late capital of the Birman king. All wore the aspect of tranquil submission, when there suddenly arose one of those men who are destined, by means almost invisible, to break the strongest rod of

* The French intercourse with Siam, towards the end of the seventeenth century, occasioned many descriptions of that kingdom; but the accounts of Ava and Pegu are rare. There is one of Tunquin and Laos, translated from the Italian of Marini, Paris, 1661, 4to.

† Also called Siam. As the *j* is in many countries pronounced *y*, (the real Oriental form) this name became the Juthea of travellers.

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power, and to change the fate of empires. Alompra, a Birman of low extraction, was the chief of a small village, and was continued in this petty office by the victors. With one hundred devoted followers, he attacked a band of fifty Peguese, whom he put to the sword; and afterwards defeated a small force sent against him; and, about the autumn of 1753, took possession of Ava, while the Peguese government seems to have been lost by mere infatuation. After repeated defeats Binga Della himself advanced against Alompra, and the war was conducted by fleets on the great river Irrawady, as well as by land, that of the Peguese being utterly defeated in close combat by that of the Birmans. Alompra, proceeding in his conquests, founded the town now well known by the name of Rangoon, which signifies "victory achieved"; and soon after chastised the people of Cassay, who had revolted from the Birman authority. In 1756, he blockaded Syrian, which yielded to his arms; and after having deprived the capital of any foreign aid by water, he advanced against the city of Pegu, situated on an extensive plain, and then surrounded with no mean fortifications, while the stupendous pagoda of Shomadoo served as a citadel. This capital was invested in January, 1757, and in about three months became a prey to the Birmans. Alompra then proceeded to subdue the countries to the eastward, as far as the Three Pagodas, the ancient boundary between Pegu and Siam. Tavoy has been since added to the Birman possessions in this quarter.

Alompra next determined to chastise the Siamese, for the encouragement they had given to his rebellious subjects, and ordered a fleet to sail to Merghi, a seaport belonging to the Siamese, which was easily taken, and was followed by the conquest of Tanaserim, a large and populous city.

The victor next advanced against the capital of Siam; but two days after the seige had commenced Alompra was seized with a deadly disease, which saved the Siamese from destruction. He died within two days march of Martaban, about the 15th May, 1760, regretted by his people, who at once venerated him as their deliverer, and as a great and victorious monarch. This founder of the Birman empire had not completed his fiftieth year; his person strong and well proportioned, exceeded the middle size; and though his features were coarse, his complexion dark, and his countenance saturnine, there was a dignity in his deportment that became his high station, and which, like that of Oliver Cromwell, seems to spring from conscious power.

He was succeeded by his son Namdogee, who suppressed several insurrections, and died in 1764, leaving an infant son, Momien, whose uncle Shembuen, second son of the great Alompra, assumed the regency and afterwards the diadem.

Shembuen, to divert the national attention, as usual with usurpers, declared war against Siam; and in 1766, two armies entered that country from the north and south, and, being united, defeated the Siamese about seven days journey from their capital. The Siamese king privately withdrew after a blockade of two months, and the city capitulated; a Siamese governor being appointed who swore allegiance to the Birman sovereignty, and engaged to pay an annual tribute.

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The Chinese, apprehensive of the progress of these conquests, advanced an army from the province of Yunnan, but were completely defeated by the Birmans. Policy spared the captives, who were invited to marry Birman wives, the Hindoo prejudices being here unknown. Shembuen rebuilt Awa Haung, or ancient Ava, the metropolis of the empire which had fallen to ruin during the late commotions. The Siamese, though vanquished, remained unsubdued; and there is an inveterate enmity betwixt the nations, which will prevent either servitude or alliance*. A Siamese prince assumed the monarchy, and in 1771, defeated the Birmans. Shembuen afterwards turned his arms to the west, and forced the raja of Cachar to pay homage to his power. He died at Ava in 1776, and was succeeded by his son Chenguza, whose tyrannical conduct occasioned a conspiracy, at the head of which was Shembuen Minderagee, the present monarch, younger brother of the deceased Shembuen. Chenguza was slain in 1782.

Soon after Minderagee withdrew the seat of government from Ava, and founded a new city to the north-east, where there is a deep and extensive lake called Tounzemaun, formed by the influx of the river, during the monsoon, through a narrow channel, which afterwards expands to a mile and a half broad, by seven or eight miles in length. Between this lake and the river Irrawady stands the new capital Ummerapoora, constructed of wood, but which has speedily become one of the most flourishing cities in the east, the situation being more strong than that of Ava.

The southern conquest of the Birmans had already extended as far as Merghi, and the northern provinces, formerly belonging to Siam, had been reduced to subjection and tribute. Minderagee determined to pass the mountains of Anoupec, and subdue Aracan, the raja, or prince, being of a supine character, and his subjects unwarlike, though they had never been reduced to pay homage to any foreign power. This conquest was commenced in 1783, and was speedily effected, the booty most highly valued, being an image of Gaudma, the Boodh of the Hindoos, made of burnished brass.

After this conquest the Birman arms were again turned against Siam, and in 1785, a fleet was sent to subdue the isle of Junkseilon, which carries on considerable trade in ivory and tin, and is the only remaining mart of Siamese trade on this coast. Meeting with a repulse, the Birman monarch left his capital at the head of 30,000 men, with a train of twenty field pieces; but was defeated by the king of Siam, who, in his turn, failed in an invasion of the viceroyalty of Martaban, which comprehends Tavoy, Merghi, and all the Birman possessions to the south. In 1793, a treaty was ratified between the Birmans and Siamese, by which the latter ceded the western maritime towns as far south as Merghi inclusive. But with this exception, and that of some northern provinces, the Siamese monarchy retains a considerable portion of its ancient fame. Hence it appears that the Birman empire can scarcely be computed to extend beyond the 102d degree of longitude, and that only in the part to the north of Siam.

* Symes, i. 171.

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CHAPTER II.

POLITICAL GEOGRAPHY.

RELIGION.—LAWS.—GOVERNMENT.—POPULATION.—ARMY.—NAVY.—REVENUES.—POLITICAL IMPORTANCE.

RELIGION. THE Birmans follow the worship of Hindostan, not as votaries of Brahma, but as disciples of Boodh, which latter is admitted by Hindoos of all descriptions to be the ninth Avatar, or descent of the deity, in his capacity of preserver*. He reformed the doctrines contained in the Vedas, and severely censured the sacrifice of cattle, or even the depriving any being of life. By a singular transposition the name of Gotma, or Gaudma, who is said to have been a philosopher, about 500 years before Christ, and taught the religion of Boodh, is generally accepted for that of the divinity. This sect is said far to exceed in antiquity the followers of Brahma, and seems more widely diffused, extending even to China, where Fo is said to be the same with Boodh, who is also credibly supposed to be the Budz or Seaka of the Japanese. But when he is asserted to have been the Woden of the Goths, a striking dissonance appears between the peaceful author of happiness, and the god of war. Even Sir William Jones has not escaped these visionary ideas of antiquaries†; but where the imagination confounds, it is the business of judgment to discriminate. The Birmans of course believe in the transmigration of souls; after which the radically bad will be condemned to lasting punishment, while the good shall enjoy eternal happiness in the mountain Meru. They esteem mercy to be the chief attribute of the divinity.

LAWS. The laws of the Birmans are inseparable from their religion. The sacred verses or forgeries of Menu are illustrated by numerous commentaries of the Munis, or old philosophers, and constitute the Dherma Sastre, or body of law. Both the religion and laws proceeded originally from Ceylon, and passed through Aracan to Miama. "The Birman system of jurisprudence is replete with sound morality, and in my opinion is distinguished above any other Hindoo commentary for perspicuity and good sense; it provides specifically for almost every species of crime that can be committed, and adds a copious chapter of precedents and decisions, to guide the inexperienced in cases where there is doubt and difficulty. Trial by ordeal and imprecation are the only absurd passages in the book; but on the subject of women it is to an European offensively indecent; like the immortal Menu it

* Symes, ii. 313.

† That great man embraced too wide a range for any human mind, and his decisions in Hindoo learning have since often been found rash and erroneous.

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tells the prince and the magistrate their duty, in language austere, manly, and energetic*".

GOVERNMENT, Though the form of government be despotic, yet the king consults a council of ancient nobles. There are no hereditary dignities nor employments; but all honours and offices, on the demise of the possessor, revert to the crown. The *tsaloe*, or chain, is the badge of nobility, the number of strings or divisions denoting the rank of the person; being three, six, nine or twelve, while the king alone wears twenty-four. Rank is also denoted by the form and material of various articles in common use.

The royal establishment is arranged with minute attention. The queens and princes have the title of praw, which, like the Latin Augustus, implies at once sacred and supreme. The elder son of the monarch is styled Engy Teekien. Next in rank to the princes are the Woongees, or chief ministers of state, (the name implying "bearer of the great burden",) who are three or four in number, and form the ruling council of the nation, issuing mandates to the Maywoons or viceroys of the several provinces, and in fact governing the empire, under the king's pleasure, whose will is absolute. There are other inferior ministers and secretaries, who have their distinct offices, so that the business of government is conducted with great regularity and precision.

POPULATION. "Of the population of the Birman dominions I could only form a conclusion from the information I received of the number of cities, towns, and villages in the empire; these I was assured by a person who might be supposed to know, and had no motive for deceiving me, amount to 8000, not including the recent addition of Arracan. If this be true, which I have no reason to doubt, and we suppose each town on an average to contain 300 houses, and each house six persons; the result will determine the population at 14,400,000. Few of the inhabitants live in solitary habitations: they mostly form themselves into small societies, and their dwellings thus collected compose their Ruas or villages; if, therefore, we reckon their numbers, including Arracan, at 17,000,000, the calculation may not be widely erroneous; I believe it rather falls short of than exceeds the truth. After all, however, it is mere conjecture, as I have no better data for my guidance than what I have related†".

ARMY AND NAVY. Every man in the empire is liable to military service, but the regular army is very inconsiderable. During war the viceroys raise one recruit from every two, three, or four houses, which otherwise pay a fine of about forty pounds sterling‡. The family of the soldier is detained as hostages; and in case of cowardice, or desertion, suffer death, a truly tyrannic mode of securing allegiance. The infantry are not regularly clothed, but are armed with muskets and sabres; while the cavalry carry spears, about seven or eight feet in length. The royal magazines are said to contain about 20,000 miserable firelocks. But the war boats form the chief military establishment, consisting of about 500, formed out of the solid trunk of the teak tree‖, the length being from eighty to 100 feet, but the breadth seldom

* Symes, ii. 336. † Ib. ii. 352. ‡ Ib. 358.

‖ The teak tree abounds in this empire, though rare in Hindostan, and works as easily as the oak, but is said to be more lasting. It must not be confounded with iron wood, which will turn the edge of an axe.

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exceeding eight. They carry from fifty to sixty rowers, the prow being solid, with a flat surface, on which a piece of ordnance is mounted. Each rower is provided with a sword and lance; and there are thirty soldiers armed with muskets. The attack is impetuous, and chiefly conducted by grappling; but the vessels being low in the water, the greatest danger is that of being run down by a larger boat striking the broadside. Their naval actions thus recal to remembrance those of classical antiquity.

Revenues. The revenue arises from one tenth of all produce, and of foreign goods imported; but the amount is uncertain. Yet as grants are commonly made in land or offices, and no money leaves the royal treasury except in cases of great emergency, it is supposed that the monarch possesses immense treasures.

Political Importance and Relations. The political importance and relations of the Birman empire may considerably influence the commerce of the east, and may be considered as a barrier against the ambition of the Chinese, who might perhaps be induced to extend their possessions in this quarter, and might, in co-operation with the native princes, endanger our possessions in Hindostan. Such is, however, the superiority of European arms, that this event is little to be apprehended. But if the Birmans, as is not improbable, were to extend their authority over the whole of that part called India beyond the Ganges, they might, as being a most brave and determined nation, prove dangerous neighbours to our possessions in Bengal, especially if so far advanced in policy as to co-operate with the western princes of Hindostan. The temporary disgusts therefore between the British and Chinese ought not to induce us to forget the greater danger from the Birmans, whose empire it cannot be our interest to enlarge, though policy will prevent our offering any open obstruction.

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CHAPTER III.

CIVIL GEOGRAPHY.

MANNERS.—LANGUAGE.—LITERATURE.—CITIES.—EDIFICES.—MANUFACTURES.—COMMERCE.

MANNERS AND CUSTOMS. THE general disposition of the Birmans is strikingly contrasted with that of the Hindoos, from whom they are separated only by a narrow range of mountains, in many places admitting of an easy intercourse*. "Notwithstanding the small extent of this barrier, the physical difference between the nations could scarcely be greater, had they been situated at the opposite extremities of the globe. The Birmans are a lively inquisitive race, active, irascible, and impatient; the character of their Bengal neighbours is too well known as the reverse to need any delineation; the unworthy passion of jealousy, which prompts most nations of the east to immure their women within the walls of an haram, and surround them with guards, seems to have scarcely any influence over the minds of this extraordinary and more liberal people. Birman wives and daughters are not concealed from the sight of men, and are suffered to have as free intercourse with each other, as the rules of the European society admit; but in other respects women have just reason to complain of their treatment; they are considered as not belonging to the same scale of the nation as men, and even the law stamps a degrading distinction between the sexes; the evidence of a woman is not received as of equal weight with that of a man; and a woman is not suffered to ascend the steps of a court of justice, but is obliged to deliver her testimony on the outside of the roof. The custom of selling their women to strangers, which has before been adverted to, is confined to the lowest classes of society, and is perhaps oftener the consequence of heavy pecuniary embarrassment, than an act of inclination; it is not however considered as shameful, nor is the female dishonoured, partly perhaps from this cause, and partly from their habits of education, women surrender themselves the victims of this barbarous custom with apparent resignation. It is also said that they are very seldom unfaithful to their foreign masters; indeed, they are often essentially useful, particularly to those who trade, by keeping their accounts, and transacting their business; but when a man departs from the country he is not suffered to carry his temporary wife along with him; on that point the law is exceedingly rigorous, every ship, before she receives her clearance, is diligently searched by the officers of the custom-house: even if their vigilance were to be eluded the women would be quickly missed; and

* Symes, ii. 383.

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It would be soon discovered in what vessel she had gone, nor could that ship ever return to a Birman port, but under penalty of confiscation of the property, and the infliction of a heavy fine and imprisonment on the master: female children also, born of a Birman mother, are not suffered to be taken away. Men are permitted to emigrate: but they think that the expatriation of women would impoverish the state, by diminishing the sources of its population."*

The women, though free, are generally too much occupied in the labours of the loom to admit of infidelity, the offspring of idleness. In war the men display the ferocity of savages, while in peace they can boast a considerable degree of gentleness and civilization. The Birman year comprises twelve months of twenty-nine or thirty days alternately, a month being interposed every third year. The subdivision of the month is peculiar, as they number the days not only from the new moon but from the full, which last is called the decreasing moon. They are fond of poetry and music, and among their instruments is the heem, resembling the ancient pipe of Pan, formed of several reeds, neatly joined together, and sounded by a common mouth piece, so as to produce a plaintive melody.

Language and Literature. The alphabet represents thirty-three simple sounds, and is written from left to right like the European. The Birman books are more neatly executed than those of the Hindoos, and in every *kioul*, or monastery, there is a library or repository of books. Colonel Symes was surprised at the number contained in the royal library, in which the large chests probably amounted to 100.† "The books were regularly classed, and the contents of each chest were written in gold letters on the lid. The librarian opened two, and shewed me some very beautiful writing on their leaves of ivory, the margins of which were ornamented with flowers of gold, neatly executed. I saw also some books written in the ancient Palli, the religious text. Every thing seemed to be arranged with perfect regularity, and I was informed that there were books upon divers subjects; more on divinity than on any other; but history, music, medicine, painting, and romance, had their separate treatises. The volumes were disposed under distinct heads, regularly numbered: and if all the other chests were as well filled as those that were submitted to our inspection, it is not improbable that his Birman majesty may possess a more numerous library than any potentate, from the banks of the Danube to the borders of China".‡

The study of the laws and national religion must of course constitute a considerable branch of education among the great; that of the poor seems to be utterly neglected.

Cities. Ava, the ancient capital, has been permitted to sink into ruin since the recent foundation of Ummerapoora, on the eastern side of a great river, which flows into the Irrawady; if, in the imperfect geography of these countries, we regard the Keen-Duen as the chief stream, a supposition little countenanced by Mr. Wood's map, inserted in Colonel Symes's account, in which the Keen-Duen is a small river flowing into the Irrawady, which last is said to pass by the

* Symes, ii. 384. † Ib. iii. 93. ‡ Ib. 96.

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capital. On the opposite side of the river is Chagaing, once a city of imperial residence, seated partly at the foot and partly on the side of a rugged hill, broken into eminences, each of which is crowned by a spiral temple.

Ummerapoora. Ummerapoora, the capital, with its spires, turretts, and lofty piasath, or obelisk, denoting the royal presence, seems to rise, like Venice, from the waters, being placed between a lake on the S. E. and the large river, with numerous isles, on the N. W. The lake is called Tounzemahn, from a village on the opposite side, ornamented with tall groves of mango, palmyra, and cocoa trees. The number and singularity of the boats that were moored in the lake, and the surrounding amphitheatre of lofty hills, conspired to render the scene grand and interesting. The fort is an exact square, with public granaries and store rooms; and there is a gilded temple at each corner, nearly one hundred feet in height, but far inferior to others in the vicinity of the capital. In the centre of this fort stands the royal palace, with a wide court in front, beyond which is the Lotoo, or hall of council, supported by seventy-seven pillars, disposed in eleven rows. The extent and population of this city have not been accurately stated, but are probably inconsiderable.

Ava. Ava, formerly the capital, is also styled Aungwa, but is in a state of ruin. "The walls are now mouldering into decay, ivy clings to the sides, and bushes, suffered to grow at the bottom, undermine the foundation, and have already caused large chasms in the different faces of the fort. The materials of the houses consisting chiefly of wood, had, on the first order for removing, been transported to the new city of Ummerapoora: but the ground, unless where it is covered with bushes or rank grass, still retains traces of former buildings and streets. The lines of the royal palace, of the Lotoo, or grand council hall, the apartments of the women, and the spot on which the piasath, or imperial spire, had stood, were pointed out to us by our guide. Clumps of bamboos, a few plantain trees, and tall thorns, occupy the greater part of the area of this lately flourishing capital. We observed two dwelling houses of brick and mortar, the roofs of which had fallen in; these our guides said had belonged to Colars, or foreigners; on entering one, we found it inhabited only by bats, which flew in our faces, whilst our sense of smelling was offended by their filth, and by the noisome mildew that hung upon the walls. Numerous temples, on which the Birmans never lay sacrilegious hands, were delapidating by time. It is impossible to draw a more striking picture of desolation and ruin."*

Pegu. Pegu, formerly the capital of a kingdom, is also in ruins; but it appears to have been a quadrangle, each side measuring nearly a mile and a half. The wall must have been about thirty feet high, and in breadth, at the base not less than forty; but only constructed of bricks, cemented with clay.† It was razed by Alompra in 1757, the Praws, or temples, being spared; and of these the vast pyramid of Shomadoo has alone been reverenced, and kept in repair. The present Birman monarch has endeavoured to conciliate the Taliens, or

* Symes, ii. 270. † Ib. ii. 51.

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native Peguese, by permitting them to rebuild their ancient city, within the site of which a new town has accordingly been reared; but Rangoon possesses so many superior advantages, that the merchants will scarcely abandon it for this new foundation. The city occupies about half its former extent, and is the residence of the Maywoon, or governor of Pegu. It is decorated with that extraordinary edifice the Shomadoo, seated on a double terrace, one side of the lower being 1391 feet, of the upper 684. The building is composed of brick and mortar, octagonal at the base, and spiral at the top, without any cavity or aperture. At the summit is a Tee, or sacred umbrella, of open iron work gilt, fifty-six feet in circumference; the height of the whole being 361 feet, and above the inner terrace 331 feet. Tradition bears that it was founded about 500 years before Christ. A more complete idea of this very singular edifice may be obtained from the print published by Colonel Symes, than any verbal description can convey.

One of the chief ports of the Birman empire is Rangoon, which, though, like the capital, of recent foundation, is supposed to contain 30,000 souls. Towards the mouth of the river Pegu stands Sirian, formerly one of the chief ports of that kingdom, and of considerable commerce when in possession of the Portuguese. It was particularly celebrated for the export of rubies, and other precious stones, which seem, however, to be chiefly found in the northern mountains.

Martaban was another sea port of considerable eminence, till the harbour was impeded by order of the Birman emperor. Of Tavoy and Merghi little is known; but Tanaserim maintains the dignity of a city.

The grand river of Irrawady is bordered with numerous towns and villages. Persain, or Bassien, stands on its western branch. At a considerable distance to the north is Prome, celebrated as the scene of many long sieges and bloody conflicts. The number of inhabitants exceeds that of Rangoon. Pagahm is also a considerable place. Nor must Arracan, a recent acquisition, be forgotten, which is divided by several canals derived from a river of the same name.

Towards the Chinese frontier are Quangtong, corresponding in name with the distant province called Canton by Europeans; Bamoo; and in the country of Cassay, Munipora. Monchaboo is a considerable town to the north of the capital.

Edifices. The most remarkable edifice is the Shomadoo before described. The Kioums are often of singularly rich and fantastic architecture, as may be observed in the delineation given by Colonel Symes; who has also published a view of the grand hall of audience, perhaps as splendid an edifice as can well be executed in wood. His reception at the "golden feet," such is the term used for the imperial presence, was also remarkably grand, the pomp in some degree corresponding with that of the ancient Byzantine emperors.

Inland Navigation. Nature has so amply provided the means of inland navigation, by the numerous mouths and streams of the grand river Irrawady, that additional industry seems superfluous.

Manufactures. The Birmans excel in gilding, and several other ornamental manufactures. Their edifices and barges are constructed with singular oriental taste and elegance; and at Chagain is a

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manufacture of marble divinities, the material being remarkably fine, and almost transparent.

Commerce. A considerable trade is carried on between the capital and Yunan, the nearest province of China, consisting chiefly in cotton, with amber, ivory, precious stones, and beetle nut; the returns being raw and wrought silks, velvets, gold leaf, preserves, paper, and some utensils of hard ware. Several thousand boats are annually employed in transporting rice from the lower provinces to supply Ummerapoora, and the northern districts. Salt and gnapee, a kind of fish sauce used with rice, are also articles of internal commerce. European broad cloth and hard ware, coarse Bengal muslins, China ware, and glass, are imported by foreigners. The Birmans, like the Chinese, have no coin: but silver in bullion, and lead, are current.

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CHAPTER IV.

NATURAL GEOGRAPHY.

CLIMATE AND SEASONS.—FACE OF THE COUNTRY.—RIVERS.—LAKES.—MOUNTAINS.—FORESTS.—BOTANY.—ZOOLOGY.—MINERALOGY.—ISLES.

CLIMATE AND SEASONS. THE vigorous health of the natives attests the salubrity of the climate, the seasons being regular, and the extremes of heat and cold little known; for the intense heat which precedes the beginning of the rainy season* is of short duration.

FACE OF THE COUNTRY. The face of the country affords almost every variety, from the swampy Delta of the Irrawady to pleasant hills and dales, and considerable ranges of mountains. "The soil of the southern provinces of the Birman empire is remarkably fertile, and produces as luxuriant crops of rice as are to be found in the finest parts of Bengal. Farther northward the country becomes irregular and mountainous; but the plains and valleys, particularly near the river, are exceedingly fruitful; they yield good wheat; and the various kinds of small grain, which grow in Hindostan; as likewise legumes and most of the esculent vegetables of India. Sugar canes, tobacco of a superior quality, indigo, cotton, and the different tropical fruits in perfection, are all indigenous products of this favoured land."† Agriculture seems to be pursued with considerable avidity, but the mode has not been particularly illustrated.

RIVERS. The chief river of the Birman empire is the Irrawady, supposed to be the Kenpou of Tibet, which, instead of being the river of Keen Duem, probably passes by Moguang to Bamoo, and thence by Ummerapoora and Prome towards the sea, which it joins by many mouths, after a comparative course of near 1200 British miles. The Keen Duem seems to rise in the mountains towards Asam, being of much inferior size where it joins the Irrawady.

The river Sitang is the next on the east, after passing the small river of Pegu, but seems to be a kind of remote branch of the Irrawady.

The Thaluan enters the sea near Martaban, being supposed to be the Nou Kiang of Tibet, which may, with more probability, be the river of Siam. In either case, the length of its course exceeds that of the Irrawady, though, not being fed by such numerous streams, it cannot equal it in size. The river of Siam, or Mague, also pervades a

* See Hindostan. † Symes, ii. 372.

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part of the Birman territory. The geography of all these rivers remains imperfect.

Dr. Buchanan observes in general, on the errors of former geographers, that the river of Arracan is not so considerable as has been supposed, but rises in hills at no great distance to the north, having been confounded with the Keen Duem, or great western branch of the Irrawady; while what is called the western branch of that river is, in fact, the eastern.* His assertion that the Loukiang or Noukiang of D'Anville is the same with the Thaluan, seems liable to doubt. He adds that the river of Pegu, formerly supposed to come from China, rises among hills about 100 miles from the sea, which form the boundary between the Birman and Pegu kingdoms: that, between the rivers of Pegu and Martaban, there is a lake from which two rivers proceed, one running N. to old Ava, where it joins a river that flows into the Irrawady, while the other passes S. to the sea, being the Sitang: that the rivers of China, which were supposed to be the sources of that of Pegu, are those of the river of Siam; and that the latter communicates with that of Cambodia, by a large branch called the Anan.†

LAKES. It would appear that there must be numerous lakes in this empire, which abounds with mountains; but the imperfect state of its geography has supplied no materials for their description.

MOUNTAINS. It is probable that the highest range of mountains is on the frontiers of Tibet. The other ranges are delineated as passing north and south, but the names are not indicated, except those of Anoupec, between Ava and Arracan, and a small range running east and west, which supplies the sources of the river of Pegu.

FORESTS. The forests are large and numerous, many parts remaining in a state of nature. They supply almost every description of timber that is known in Hindostan; and, about four days journey to the north of the capital, firs grow in abundance. But the lord of the Birman forest is the teak tree, superior to the European oak, which is there unknown: the teak flourishes in many parts of the empire, to the north of the capital, as well as to the south.

BOTANY. All the countries that compose the rich and extensive territory of India beyond the Ganges, including the Birman empire, and the dominions of Pegu, Siam, Cambodia, Cochin-China, and Malacca, bear such a similarity to each other in their vegetable productions as far as they have been investigated, as renders it impossible to give a general and separate view of their respective floras without continual repetitions. Certain districts, also in further India, have been examined with considerable attention, while others, similarly situated, have remained almost wholly overlooked: it is only, therefore, from analogy (a highly probable one indeed) that we can conjecture the most

* Symes, ii. 413.

† D'Anville, in his map of Asia, has supposed the Sanpou, or Berhampooter, to be the same with the river of Ava or the Irrawady. The Noukiang he imagines the same with the river of Pegu: while the large river of Siam is supposed to have a comparatively short course. Such are the gross errors of this eminent geographer, whose work Mr. Gibbon pronounces to be perfect, while in fact they only shew the very imperfect state of geography even in his time.

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characteristic species of their indigenous plants. The mountains of the interior, and in general of the whole northern frontier, are still totally unexplored, and the deep forests, infested with tigers, must ever continue, even in the more accessible parts, to oppose no trifling obstacles to the spirit of scientific adventure.

It is in those parts of the torrid zone that abound with water, and where, from the influence of the monsoons, the country is extensively flooded every year, that vegetation assumes a vigour and sublimity wholly inconceivable by the native of more temperate climates: everlasting verdure, grace, and majesty of form, height and amplitude of growth, are the distinguishing attributes of their trees, compared with which the monarchs of our forests sink into vegetables of an inferior order: the same exuberance of nature is conspicuous in their shrubs and herbaceous plants, in their blossoms, and their fruits, whose vivid brilliancy of colour, singularity of shape, aromatic fragrance, and exalted flavour, reduce to relative insignificance the puny produce of European summers.

Here rises, in proud magnificence, the white sandal tree, whose fragrant wood, mixed with that of the aloëxylum verum, also a native of these regions, is in high request through the whole east for the grateful odour of its smoak. The teak tree (tectona theca) is at least equal even to British oak as a durable material for ship-building: the true jet black ebony wood is the produce of the ebenoxylum verum, one of the indigenous trees of Cochin-China. The sycamore fig, the Indian fig, and the banyan tree itself a grove, by the breadth of their leaves, and the luxuriance of their foliage, afford a most delicious shelter, impenetrable even by the meridian ardour of an Indian sun. Mingled with these, and emulating them in size, are the bignonia indica, the nauclea orientalis, corypha scribus, one of the loftiest of the palm trees, and excoecaria Cochinchinensis, remarkable for the crimson under surface of its leaves.

Of the plants that are used in medicine or the arts some of the most important are natives of further India: the nature of this work does not admit of specifying the whole, but those of most consequence are the following. The ginger and cardamom, two pleasant aromatics, are found wild on the river sides, but are also cultivated in great abundance; the turmeric, whose principal use, in Europe, is as a dying drug, is largely used by the natives of the coast to tinge and flavour their rice and other food: the leaves of the betel pepper, with the fruit of the black and long pepper, and the fagaria piperita, are the most favourite of their native spices, to which may also be added three or four kinds of capsicum. Among the various dying drugs may be distinguished justicia tinctoria, yielding a beautiful green tinge; morinda umbellata, gamboge and carthamus, all of them yellow dyes, the red wood of the lawsonia spinosa and Cæsalpinia sappan, and the indigo; the gum resin called dragon's blood, appears to be produced by several species of plants, and two of these, the dracæna ferrea and calamus rotang, are natives of Cochin-China. The bark of the nerium antidysentericum, called codagapala, and that of the laurus culilavan, the fruit of the strychnos nuxvomica, the cassia fistula, the tamarind, and the croton tiglium, the inspissated juice of the aloe, the resin of the camphor tree,

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and the oil of the ricinus, are all occasionally imported from this country for the European dispensaries. The cinnamon laurel grows in abundance on each side of the Malayan peninsula, and sometimes, as it is said, accompanied by the nutmeg. The sugar cane, the bamboo, and the spikenard, the three most celebrated plants of the grass tribe, are found throughout the whole country; the two former in rich swamps, and the latter on dry hills. The sweet potato, ipomæa tuberosa, mad-apple and love-apple (solanum melongena and lycopersicon), nymphæa nelumbo, gourds, melons, water melons, and a profusion of other esculent plants, enrich this favoured country; all these, however, require cultivation: but the plantain, the cocoa nut, and sago palm, furnished by the free unstinted bounty of nature, contribute most plentifully to satisfy the wants of the inhabitants. Of native fruits they possess a vast variety and an inexhaustible abundance. The vine grows wild in the forests, but from the excessive heat and want of cultivation its fruit is far inferior to that of the south of Europe: to compensate, however, for this deficiency, they have the luscious mango, the pine apple, the sapindus edulis (the li-tschi of the Chinese), the mangosteen plum (garcinia mangostana), the averrhoa carambola, the custard apple, the papaw fig, the orange, the lemon and lime, and a multitude of other exquisite fruits, whose very names are scarcely known in Europe. The attempt to give even a very faint idea by words of the infinite multitude of ornamental plants that cover the country would be wholly in vain; a few have been introduced into our hot-houses, where they continue a languid imperfect existence, and of which, faded and sickly as they are, they constitute the chief glory.

Zoology. The animals in general correspond with those of Hindostan. Elephants principally abound in Pegu. The horses are small, but spirited. The ichneumon, or rat of Pharaoh, is rather peculiar. A kind of wild fowl, called the henza, and by the Hindoos the braminy goose, has been adopted as the symbol of the empire, like the Roman eagle. The Birmans abstain from animal food except game; but there are many buffaloes.

Mineralogy. The mineralogy of this region, the Golden Chersonese of the ancients, is opulent, and some products rather singular. While Malacca, which has hitherto been supposed the Golden Chersonese, scarcely produces any mineral except tin, and is, in truth, a poor country, only celebrated as an emporium of Portuguese trade with China, the rivers of Pegu, on the contrary, still continue to devolve particles of gold; and their sands must in ancient times have been yet more prolific of that precious metal. Nor is it improbable that the practice of gilding the roofs and spires of temples and palaces may ascend to ancient times, as we are told that the Shomadoo was built about 500 years before the Christian era; in which case the splendid appearance might naturally give rise to the classical appellation of the country. Colonel Symes informs us that "gold is discovered in the sandy beds of streams which descend from the mountains. Between the Keen Duem and the Irrawady, to the northward, there is a small river called Sho Lien Kioup, or the Stream of Golden Sand."* In

* Symes, ii. 375.

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many regions gold is found intermingled with silver; and six days journey from Bamoo (probably towards the north) there are mines of gold and silver at Badouem, near the frontiers of China. By a singular conjunction, there are, according to the same authority, mines of gold, silver, rubies, and sapphires, at present open on a mountain called Wooboloo-taun, near the river Keen Duem.

There is also abundance of inferior minerals, as tin, iron, lead, antimony, arsenic, and sulphur; and amber, a rare and singular product, is not only dug up in large quantities near the river Irrawady, but is uncommonly pure and pellucid.

Diamonds and emeralds are not found in the Birman empire; but it affords amethysts, garnets, very beautiful chrysolites of a greenish yellow; with the inferior products of jasper, loadstone, and marble, the quarries of the latter, which equals the best Carara, being only a few miles from Ummerapoora.

The most singular product of Pegu is the ruby, a stone next to the diamond in value, and which, according to Shelden, is found in a mountain between Sirian and Pegu, this substance being almost as peculiar as the diamond is to Hindostan. By Colonel Symes's account, rubies and sapphires are also found in the north western part of the empire; but the most valuable mines are in the vicinity of the capital, or rather about thirty British miles to the north.

Isles. The Birmans seem to be in possession of several isles in the gulf of Martaban, the Magnus Sinus of antiquity, and of others to the south and west, but too minute to demand description, if there even were sufficient materials.*

* See Forrest's Voyage from Calcutta to the Archipelago of Mergui, 4to.

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MALAYA OR MALACCA.

PROGRESSIVE GEOGRAPHY.—NAME AND EXTENT.—LANGUAGE.—DIVISIONS.—PRODUCTS.—CITY OF MALACCA.—GENERAL REMARKS ON THE MALAYS.—ISLES OF ANDAMAN AND NICOBAR.

HAVING thus finished the description of the chief native empires of Asia, a foreign power, that of the English in Hindostan, will naturally attract the next attention, as perhaps not unequal in real and effective force even to the greatest of these empires. While the English colonies in America claim a decided preponderance over any power on that continent, it is not a little surprising to behold the natives of a remote European isle exercising such sway in Asia, and influencing the councils of the most remote potentates. The colony established in New Holland is also a striking and singular feature in human history; and will probably secure lasting ascendancy in a region before unknown. Were Egypt to yield to the British arms, it might be asserted that the English name is pre-eminent in every quarter of the globe.* Such are the fruits of national freedom, the parent of industry and enterprise.

But as the British empire in Hindostan only embraces a comparatively small part of that extensive region, indissolubly connected with the others by identity of population, manners, and laws, it seems preferable to follow a plan merely geographical in describing the remaining states of Asia; and, after completing the account of those beyond the Ganges, to proceed to Hindostan, Persia, and Arabia.

In the same view of geographical connection, where the political weight of the state deserves little consideration, either from power or durability, it will be proper, after the preceding description of the Birman territories, to subjoin some account of that peninsula appended to them on the south, and styled Malaya or Malacca.

PROGRESSIVE GEOGRAPHY. This Chersonese was certainly unknown to the ancients, and seems to have escaped the knowledge of Marco Polo, though the isle of Sumatra appears to have been known to him by the name of Java Minor, if this be not his Maletur, where he

* This event has since happened—but Egypt is resigned to Turkish barbarism.

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says there was abundance of spices, and the natives had a proper and peculiar speech*.

However this be, the Portuguese are regarded as the first discoverers of Malacca, to which they were led by the vain idea of finding the golden Chersonese of the ancients. When Sequeira reached this peninsula in 1509, he found it subject to Mahmud, a Mahometan prince; while the capital, Malacca, had acquired some consideration from its favourable position, as a mart of trade between China and Hindostan. In 1511, the Portuguese conquered the peninsula.

NAME. The name is derived from the Malays, who are mostly Mahometans, and in some degree civilized; but the inland parts seem to be possessed by a more rude native race, little known amidst the imperfection of materials concerning this country, neither the Portuguese nor Dutch being eminent in scientific precision.

EXTENT. The northern limits are not strictly defined; but Malacca is about eight degrees, or near 560 British miles in length, by about 150 miles of medial breadth, a territory sufficiently ample for a powerful monarchy, had its native productions corresponded with its extent.

LANGUAGE. As the Malays have established several governments in Sumatra, the best ideas concerning them may be derived from M. Marsden's history of that isle. Their language has been called the Italian of the east, from the melody of frequent vowels and liquids; and the above intelligent traveller has produced the following specimen:

Apo goono passang paleeto
Callo teedah dangan soomboonia?
Apo goono bermine matto
Callo teedah dangan soongoonia?

What signifies attempting to light a lamp
If the wick be wanting?
What signifies making love with the eyes,
If nothing in earnest be intended?

The Malays use the Arabic character; and an influx of words of that language has followed the adoption of the Mahometan religion†. They write on paper, using ink of their own composition, and pens made of the twigs of a tree. The purest Malay is still supposed to be spoken in the peninsula, and has no inflexion of nouns or verbs.

DIVISIONS. Though the manners and customs of the Malays be deeply tinctured with those common to other Mahometans, yet in the inland parts of the country the people remain nearly in a savage state, and do not partake of the civilization of the adjacent kingdoms

* See in the account of the Asiatic islands a note on this subject. Some may imagine that his Boeash or Loeach is perhaps *Leuce* or Camboja (D'Anville's Asia). But it seems more probable that *Boeach* is the northern part of Malacca, and *Malatur* the southern: for his *Garbinius* is the south-west point, and *Siroccus* the south-east.

† Hence Thunberg, ii. 228. has ridiculously supposed the Malay to be a dialect of the Arabic. It is of Sanscrit origin. As. Res. iv. 217.

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of Pegu and Siam. In the last century Mandelslo, or rather Olearius, who published his voyage, describes Malacca as divided into two kingdoms, that of Patani in the north, and that of Yohor or Jor in the south*.

Patani. The town of Patani was inhabited by Malays and Siamese; and the people were Mahometans tributary to Siam. The town is built of reeds and wood, but the mosque of brick; and the commerce was conducted by the Chinese and the Portuguse settlers, the native Malays being chiefly employed in fishing and agriculture. According to this traveller there are continual rains with a north-east wind during the months of November, December, and January. Agriculture was conducted with oxen and buffaloes, the chief product being rice. There was abundance of game and fruits, and the forests swarmed with monkeys, tigers, wild boars, and wild elephants. From the kingdom of Patani the Portuguese used yearly to purchase about 1500 cattle for their settlement at Malacca.

Yohor. The kingdom of Yohor occupied the southern extremity of the Chersonese, the chief towns being Linga, Bintam, Carimon, and Batusaber†; which last was the capital of the kingdom, being situated about six leagues from the sea on the river Yohor, in a marshy situation, so that the small houses were obliged to be raised about eight feet from the ground. All the country belonging to the king, lands were assigned to any person who demanded them, but the Malays were so indolent that the country was chiefly left to the wild luxuriance of nature. Even in the time of this traveller, the Malayan language was esteemed the most melodious in the east, and as universal as the French in Europe, a remark which has been recently repeated by Thunberg.

Products. The inland part of the Malayan peninsula seems to remain full of extensive aboriginal forest; nor do the ancient or modern maps indicate any towns or villages in these parts. The indolence of the inhabitants has prevented the country from being explored; but it produces pepper and other spices, with some precious gums and wood, among which perhaps the teak may be found. The wild elephants supply abundance of ivory; but the tin, the only mineral mentioned, may perhaps be the produce of Banka‡. If gold or diamonds had existed, they could not have escaped the avarice of the Dutch; and we may rest assured this country could never have been the Golden Chersonese of the ancients.

The form of the Malay government may be conceived from those transplanted to Sumatra, and described by M. Marsden||. The titles of the sultans, or rajas are numerous and fantastic. Next in rank are a kind of nobles, who in Sumatra are called Dattoos, to whom the others are vassals.

* Vol. i. col. 338. edit. 1727, 2 vols. fol.

† Col. 342.

‡ Yet Mr. Pennant, View of Hindostan, iii. 30, asserts from the authority of Hamilton, who visited this country in 1719, that much gold is found in the river which runs from near the city of Malacca towards the eastern coast.

|| 267, 283.

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Malacca City. The city of Malacca, which seems to have been founded by Mahometans in the thirteenth century, was held by the Portuguese till 1641, when it was seized by the Dutch. It was considered as situated in the southern kingdom of Yohor; and in the last century was supposed to contain 12,000 inhabitants, of which however only 3000 dwelled within the walls. Not above 300 were native Portuguese, the other being a mixed race of Mahometan Malays, accounted among the chief merchants of the east. The Portuguese settlement did not extend above five leagues around; yet became highly important from its advantageous position for Indian and Chinese commerce*.

The mean and disgraceful jealousy of the Dutch concerning their oriental possessions renders the recent accounts of this city imperfect.

Malays. In general the Malays are a well made people, though rather below the middle stature, their limbs well shaped, but small, and particularly slender at the wrists and ancles. Their complexion is tawney, their eyes large, their noses seem rather flattened by art than nature; and their hair is very long, black, and shining.

Besides the tiger and elephant, Malacca produces the civet cat described by Sonnerat, who also mentions that wild men are found in this peninsula, perhaps the noted Orang Outangs. Some singular birds are also found; and Malacca likewise produces a most delicious fruit called the mangosten.

In imitation of Mr. Pennant†, this account shall be closed with a few extracts from M. le Poivre's philosophical voyages, that judicious observer having given a more just idea of the Malays than any other traveller.

"Beyond the kingdom of Siam is the peninsula of Malacca, a country formerly well peopled, and consequently well cultivated. This nation was once one of the greatest powers, and made a very considerable figure in the theatre of Asia. The sea was covered with their ships, and they carried on a most extensive commerce. Their laws however were apparently very different from those which subsist among them at present. From time to time they sent out numbers of colonies, which one after another peopled the islands of Sumatra, Java, Borneo, Celebez or Macassar, the Moluccas, the Phillippines, and those innumerable islands of the Archipelago which bound Asia on the east, and which occupy an extent of 700 leagues in longitude from east to west, by about 600 of latitude from north to south. The inhabitants of all these islands, those at least upon the coasts, are the same people. They speak almost the same language, have the same laws, the same manners. Is it not somewhat singular that this nation, whose possessions are so extensive, should scarce be known in Europe? I shall endeavour to give you an idea of those laws and those manners; you will from thence easily judge of their agriculture.

"Travellers who make observations on the Malays, are astonished to find in the centre of Asia, under the scorching climate of the line, the laws, the manners, the customs, and the prejudices, of the ancient

* Mandelslo, i. Col 337.

† Outlines of the Globe. London, 1803. 4 vol. 4to. iii. 33.

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inhabitants of the north of Europe. The Malays are governed by feudal laws, that capricious system conceived for the defence of the liberty of a few against the tyranny of one, whilst the multitude is subjected to slavery and oppression.

"A chief, who has the title of king or sultan, issues his commands to his great vassals, who obey when they think proper; these have inferior vassals, who often act in the same manner with regard to them. A small part of the nation live independent, under the title of *Oramcai* or noble, and sell their services to those who pay them best; whilst the body of the nation is composed of slaves, and lives in perpetual servitude.

"With these laws the Malays are restless, fond of navigation, war, plunder, emigrations, colonies, desperate enterprises, adventures, and gallantry. They talk incessantly of their honour and their bravery, whilst they are universally considered by those with whom they have intercourse as the most treacherous ferocious people on the face of the globe; and yet, which appeared to me extremely singular, they speak the softest language of Asia. What the Count de Forbin has said in his memoirs of the ferocity of the Macassars, is exactly true, and is the reigning characteristic of the whole Malay nations. More attached to the absurd laws of their pretended honour than to those of justice or humanity, you always observe that amongst them the strong oppress and destroy the weak; their treaties of peace and friendship never subsisting beyond that self-interest which induced them to make them, they are almost always armed, and either at war amongst themselves, or employed in pillaging their neighbours.

"This ferocity which the Malays qualify under the name of courage, is so well known to the European companies who have settlements in the Indies, that they have universally agreed in prohibiting the captains of their ships, who may put into the Malay islands, from taking on board any seamen of that nation, except in the greatest distress, and then on no account to exceed two or three.

"It is nothing uncommon for a handful of these horrid savages suddenly to embark, attack a vessel by surprise, poignard in hand, massacre the people, and make themselves masters of her. Malay barks, with twenty-five or thirty men, have been known to board European ships of thirty or forty guns, in order to take possession of them, and murder, with their poignards, great part of the crew. The Malay history is full of such enterprises, which mark the desperate ferocity of those barbarians.

"The Malays who are not slaves go always armed; they would think themselves disgraced if they went abroad without their poignards, which they call *Crit;* the industry of this nation even surpasses itself in the fabric of this destructive weapon.

"As their lives are a perpetual round of agitation and tumult they could never endure the long flowing habits which prevail among the other Asiatics. The habits of the Malays are exactly adapted to their shapes, and loaded with a multitude of buttons, which fasten them close to their bodies in every part. I relate these seemingly trifling observations in order to prove that in climates the most opposite the same laws

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produce similar manners, customs, and prejudices: their effect is the same too with respect to agriculture.

"The lands possessed by the Malays are in general of a superior quality; nature seems to have taken pleasure in there assembling most favourite productions. They have not only those to be found in the territories of Siam, but a variety of others. The country is covered with odoriferous woods, such as the eagle, or aloes wood, the sandal, and the *Cassia odorata*, a species of cinnamon; you there breathe an air impregnated with the odours of innumerable flowers of the greatest fragrance, of which there is a perpetual succession the year round, the sweet flavour of which captivates the soul, and inspires the most voluptuous sensations. No traveller wandering over the plains of Malacca but feels himself strongly impelled to wish his residence fixed in a place so luxuriant in allurements, where nature triumphs without the assistance of art.....In the midst of all this luxuriance of nature the Malay is miserable; the culture of the lands, abandoned to slaves, is fallen into contempt. These wretched labourers, dragged incessantly from their rustic employments by their restless masters, who delight in war and maritime enterprises, have rarely time, and never resolution, to give the necessary attention to the labouring of their grounds; their lands in general remain uncultivated, and produce no kind of grain for the subsistence of the inhabitants".

The reader who wishes for more ample information concerning this peninsula may be referred to the voyages of Nieuhof and Hamilton. As the latter asserts that the inland inhabitants, whom he calls the Monocaboes, are a different race from the Malays, and of much lighter complexion, it would seem probable that the Malays passed into this country from the north or south, and there is no small difficulty in accounting for their origin. The language should be skillfully collated with those of the neighbouring countries, and even with the ancient dialects of Hindostan, as perhaps they may be found to be the same with the Pallis, traditionally said to have been the most early inhabitants of that celebrated country.

ANDAMAN. Opposite to the coast of Malacca, though at a considerable distance, are the islands of Andaman and of Nicobar. The great Andaman is about 140 British miles in length, but not more than twenty in the greatest breadth, indented by deep bays affording excellent harbours, and intersected by vast inlets and creeks, one of which, navigable for small vessels, passes quite through the isle*. The soil is chiefly black mould, the cliffs of a white arenacious stone. The extensive forests afford some precious trees, as ebony, and the *mellori*, or Nicobar bread fruit. The only quadrupeds seem to be wild hogs, monkies, and rats. The sea supplies numerous fish, among which are mullets, soles, and excellent oysters. The people of the Andamans are as little civilized as any in the world, and are probably cannibals, having at least a particular antipathy against strangers. They have wooly heads, and perfectly resemble negroes; being as some report descended from a crew of African slaves; but they are mentioned in the ninth century by the Mahometan travellers with all

* As. Res. iv. 335.

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their peculiarities, and it is difficult to conceive how a cargo of slaves could at an early period be steered in that direction. The south-west monsoon may have driven their canoes from the coasts of Africa; and, opposed in civilized parts, they may have seized this desert isle*. Their character is truly brutal, insidious, and ferocious, and their canoes of the rudest kind. On Barren Isle, about fifteen leagues to the east of the Andamans, is a violent volcano which emits showers of red hot stones; and the whole island has a singular and volcanic appearance. A British settlement has been recently formed on the greater Andaman, and some convicts sent thither from Bengal. The natives, about 2000, have already profited by the example of English industry.

NICOBAR. The Nicobars are three; the largest being about five leagues in circumference†. They produce cocoa and areca trees, with yams and sweet potatos; and the eatable bird's nests, so highly esteemed in China, abound here as well as in the Andamans. The people are of a copper colour, with small oblique eyes and other Tatar features. In their dress a small stripe of cloth hangs down behind; and hence the ignorant tales of seamen which led even Linnæus to infer that some kinds of men had tails. The only quadrupeds are swine and dogs. The traffic is in cocoa nuts, of which one hundred are given for a yard of blue cloth. The tree called by the natives larum, by the Portuguese mellori, produces an excellent bread fruit, different from the kind found in the interior parts of Africa, and also from that of Otaheite. The fruit is said to weigh twenty or thirty pounds; and some plants have been brought to the botanical garden of the East-India company near Calcutta.

* They are, after all, probably of the same race with the other negroes of the Asiatic Isles, which see.

† As. Res. iii. 149.

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SIAM.

CHAPTER I.

HISTORICAL GEOGRAPHY.

NAME.—EXTENT.—BOUNDARIES.—ORIGINAL POPULATION.—PROGRESSIVE GEOGRAPHY.—HISTORICAL EPOCHS.

TILL the recent extension of the Birman empire, the rich and flourishing monarchy of Siam was to be regarded as the chief state of exterior India. The brief connection established with France, towards the end of the seventeenth century, excited many writers to give accounts of this kingdom, while only an imperfect knowledge was diffused concerning the surrounding states. Those of the Jesuits are deservedly disesteemed, when compared with that of La Loubere, himself envoy extraordinary from Louis XIV to the Siamese court, which remains the chief guide concerning this state, though capable of occasional improvements from more recent information on particular topics.

NAME. The name of this celebrated country is of uncertain origin, and, in appearance, first delivered by the Portuguese, in whose orthography Siom and Siaõ are the same, so that Sian, or Siang, might be preferable to Siam*; and the Portuguese writers in Latin call the natives *Siomes*. The Siamese style themselves *Tai*, or freemen, and their country *Meuang Tai*, or the kingdom of freemen. It is probable that the Portuguese derived the name Sian from intercourse with the Pegueset.

EXTENT AND BOUNDARIES. The extent of the Siamese dominions has been recently restricted by the encroachments of the Birmans, nor can some of the limits be accurately defined. On the west of the Malaian peninsula a few possessions may remain, to the south of Tanaserim; and on the eastern side of that Chersonese Ligor

* Loubere, i. 16. edit. Amst. 1714.

† *Sban* is the oriental term, as appears from several papers in the Asiatic Researches.

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may mark the boundary. On the west a chain of mountains seems to divide Siam, as formerly from Pegu,—but the northern province of Yunshan, would appear to be in the hands of the Birmans, who here seem to extend to the river Maykang; and perhaps the limits may be a small ridge running east and west, above the river Anan. To the south and east the ancient boundaries are fixed; the ocean, and a chain of mountains, dividing Siam from Laos and Cambodia. Thus the ancient idea may be retained, that this kingdom is a large vale between two ridges of mountains.

The northern boundaries, as defined by Loubere, evince that Siam has lost little in that quarter. His city Chiami is probably Zamee; and was fifteen days journey beyond the Siamese frontier. But when he marks the northern limit at twenty-two degrees, there is an error in latitude. It is about the nineteenth degree; so that the length of the kingdom may be about ten degrees, or near 700 British miles; but of this about one half is not above seventy miles in medial breadth. A more adequate admeasurement may be estimated from about eleven degrees of north latitude, to nineteen degrees: a length of about 550 British miles, by the breadth of 240.

Original Population. The original population of Siam, and other regions of exterior India, can only be traced by affinity of languages; and the topic has been little illustrated. For this purpose the vulgar speech must be chosen, and not the Bali, or language of the learned, which is perhaps the same with the Palli of Hindostan. If the former be monosyllabic, as Loubere says, it bears some affinity with the Chinese; and, he adds, with those of the eastern regions of exterior India. That of the Malays is very different; and perhaps they proceeded, as before-mentioned, from Hindostan, while the other tribes of further India advanced by land from China and Tibet; though there may perhaps be found great difference in the dialect, from early separation in a savage state, followed by different wants and customs.

Progressive Geography. The progressive geography of Siam ascends to classical antiquity, if the people be, as is reasonably inferred, the Sinæ of Ptolemy. The early navigators imagined that the Chinese were the Sinæ, and that the isle of Taprobana was Sumatra! In the reign of the emperor Justinian, Cosmas, called Indicopleustes, mentions the silk of Sinæ, as imported into Taprobana: which he also calls *Sielediv*, coinciding with *Selendiba*, the oriental name of Ceylon: and when he adds that this isle was at an equal distance from the Persian gulf, and the region of the Sinæ, he affords an additional proof that the latter was Siam. This country is not indeed at present remarkable for the production of silk, the staple article of the ancient Sinæ; but it appears that the silk of the early classics was the growth of a tree, a kind of silky cotton, still abundant in Siam; and perhaps, as Malacca afterwards became famous for products not its own, so Siam, in a similar centrical position between China and Hindostan might, in ancient times, be the mart of this and other more oriental articles. When real silk became known to the Romans, about the time of Aurelian, a pound was sold for twelve ounces of gold, a price which shews that it must have passed through repeated mercantile profits. The Persian monks, who, in the sixth century, introduced the silk-worm

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into the Byzantine empire, perhaps proceeded to the west of China, if they did not find that valuable insect in some warm vales of Tibet*. Nor, while it is denied that the Greeks or Romans had any knowledge of China, is it meant to be inferred that the Persians were in the like predicament; the Arabian travellers of the ninth century, whose account is published by Renaudot, and is incontestably genuine, shewing a very complete knowledge of that country.

Some faint notices concerning Siam may probably occur in the oriental geographers of the middle ages: but such inquiries are more proper for an antiquarian dissertation. Suffice it to observe that, till the Portuguese discoveries, Siam may be said to have remained unknown to Europeans. In the middle of the seventeenth century Mandelslo†, or his translator Wicquefort, has compiled a tolerable account of this country; but the French descriptions present more precision of knowledge as well as more extent of information. By the latter was first reformed a singular error in the geography, which deduced the great rivers of Ava, Pegu, and Siam from a large inland lake called Chiamai, in latitude thirty degrees, while Tibet is placed in latitude forty degrees. This gross error perhaps arose from the report that the small river of Pegu rises in a lake about latitude twenty-one degrees. But on comparing the maps of Asia, in the beginning of last century, and even that of China and the East Indies, in the Amsterdam edition of Mandelslo, 1718, the reader will be sensible of the great progress of geography in recent times.

Historical Epochs. The Siamese history is imperfect and abounds with fables. Their epoch is derived from the pretended disparition of their god Sammona Codam (or Boodh); and the christian year 1689 corresponded with their 2233d‡. Yet by Loubere's account their first king began to reign in the year 1300 of their epoch, or about 756 years after the christian era. Wars with Pegu, and occasional usurpations of the throne constitute the hinges of Siamese history since the Portuguese discovery. In 1568 the Peguese king declared war on account of two white elephants which the Siamese refused to surrender, and after prodigious slaughter on both sides Siam became tributary to Pegu. But about 1620 Raja Hapi delivered his crown from this servitude‖. In 1680 Phalcon, a Greek adventurer, being highly favoured by the king of Siam, opened an intercourse with France, in the view of supporting his ambitious designs; but they were punished by his decapitation in 1689, and the French connexion ceased in consequence. The latter events of Siamese history may partly be traced in that of the Birman empire.

* If, as some ancients affirm, they brought it from the *Seres*, (not the Sinæ) Little Bucharia must be implied; but the ancient ideas were vague; and often as in the case of Arabia and Hindostan, confounded the mart with the native country.

† Col. 304....331. ‡ Loubere, i. 21. ‖ Mandelslo, 322.

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CHAPTER II.

POLITICAL GEOGRAPHY.

RELIGION.—GOVERNMENT.—LAWS.—POPULATION.—ARMY.—NAVY.—REVENUES.—POLITICAL IMPORTANCE.

RELIGION. THE religion of the Siamese, like that of the Birmans, resembles that of the Hindoos; and the transmigration of souls forms an essential part of the doctrine. Sommona Codam, mentioned by Loubere as the chief idol of Siam, is interpreted by competent judges to be the same with the Boodh of Hindostan*. The sacred language called Bali is of the same origin; and Loubere has published a translation of a Siamese legend in that tongue. The most esteemed book seems the Vinac; and the precepts of morality are chiefly five. 1. Not to kill. 2. Not to steal. 3. Not to commit uncleanness. 4. Not to lie. 5. Not to drink any intoxicating liquor†. Compared with the precepts of Moses, those against idols are of course unknown, nor is any particular day of the week declared sacred. Vain swearing, and false testimony are also omitted; nor is there any command to pay due respect to parents, or to avoid covetousness. But in the universal code of morality, murder and theft are esteemed pre-eminent crimes; the first being irreparable. Loubere has also given a translation of a more minute code of morals, chiefly compiled for the use of the persons dedicated to religion, whom he names Talapoins.

In the Birman empire the high priest is called the Seredaw, while the term for an inferior priest is Rhahan. Loubere has entered into considerable details concerning the priests and monks of Siam, whom he calls Talapoins, though he add that the native term is Tchaoucou‡; and he does not explain the probably Dutch appellation of Talapoin, though he inform us that the convents are named Vat, and the temples Pihan; while the Portuguese style them and the idols *Pagods*, as that author conceives, from the Persian *Poutgheda*, meaning an idol temple.

The Siamese imitate the Chinese in their festival of the dead, and in some other rites of that singular nation.

GOVERNMENT. The government of Siam is despotic; and the sovereign, as among the Birmans, revered with honours almost divine. The succession to the crown is hereditary in the male line. Loubere adds that a council was generally held twice a day, about ten

* Symes, ii. 319. † Loubere, i. 381.

‡ Kæmpfer, i. 62, says the young monks are styled Dsiaunces, and the old Dsiaukus: the nuns Nank-tsiji.

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o'clock in the morning, and at the same hour in the evening, when suits were discussed, and affairs of state deliberated. It may be conceived that the king was not always present. Sometimes he consults the Sancras, or superior Talapoins, and sometimes the governors of provinces.

Laws. The laws are represented by all writers on this country, as extremely severe, death or mutilation being punishments even of unimportant offences.

Population. Concerning the population of Siam there are no adequate documents. If the Birman empire contain, as is asserted, more than 14,000,000, it might perhaps be reasonable to conclude that the Siamese dominions may be peopled by about 8,000,000. Yet Loubere assures us, that from actual enumeration, there were only found of men, women, and children, 1,900,000*. So uncertain are the computations in oriental countries!

Army. Loubere says, that in his time, there was no army, except a few royal guards; but Mandelslo estimated the army, which may be occasionally raised, at 60,000, with not less than 3000 or 4000 elephants. The manner of raising this army resembles that already described, as practised in the Birman empire.

Navy. The navy is composed of a number of vessels of various sizes, some of which are richly decorated. Hence, as in the Birman history, naval engagements are not uncommon; and the large rivers of exterior India are often reddened with human gore. The form of the Birman and Siamese vessels may be better learned from the plates, in the works of Col. Symes and Loubere, than from the most elaborate description. They frequently display a singular fantastic elegance.

Revenues. The revenues of this sovereignty are of uncertain computation. They are described by Mandelslo as arising from the third of all inheritances, from trade conducted by royal agents, annual presents from the governors of provinces, duties imposed on commerce, and the discovery of gold, which by this account seems a regal claim. Loubere adds a kind of land-tax; and other particulars, among which is the royal domain†. Tin is also a royal metal, except that found in Jonkscylon, a remote isle on the Malaian coast, which is abandoned to the adventurers. There is a royal treasury, as in most other eastern states, but voyagers have not attempted to define its probable amount. Loubere says it was reported as an extraordinary affair, that the king had increased his revenue by about 42,000*l.* sterling; supposing this a fifth part of the whole, the opulence of the monarch must chiefly arise from the national poverty, which renders money valuable when compared with commodities.

Political Importance and Relations. Siam appeared of considerable political importance to the French in the reign of Louis XIV, who aspired to form lasting settlements, and render it a mart of Indian commerce, and a source of great opulence to themselves. Were the Birmans to become dangerous to our possessions in Bengal,

* i. 30. † i. 284.

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a firm alliance with Siam might be highly serviceable; and the like policy is adapted to the Chinese empire, if that great state ever formed alliances. In a merely commercial point of view, as it may be difficult to preserve the friendship both of the Birmans and the Siamese, it is a matter of calculation from which state superior advantages may be derived. If directed by European policy, Siam would form strict alliances with the more eastern states of exterior India, as a common defence against the growing preponderance of the Birmans.

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CHAPTER III.

CIVIL GEOGRAPHY.

MANNERS AND CUSTOMS.—LANGUAGE.—LITERATURE.—CITIES.—EDIFICES.—MANUFACTURES AND COMMERCE.

MANNERS AND CUSTOMS. THERE is a considerable similitude in the manners and customs of all the states between the vast countries of China and Hindostan; with shades of difference, as they approximate to either of these *foci* of civilization. Siam, though centrical, has embraced a branch of Hindoo faith, and the manners are rather Hindostanic than Chinese.

Loubere has given an ample and interesting account of Siamese manners. The fair sex are under few restraints, and are married at an early age, being past parturition at forty. The espousals are concluded by female mediation; and as wealth is carefully concealed, from dread of extortion by the magistrate or prince, a priest or magician is consulted concerning the propriety of the alliance. On the third visit the parties are considered as wedded, after the exchange of a few presents, and without any further ceremony, civil or sacred. Polygamy is allowed; but is rather practised from ostentation than any other motive, and one wife is always acknowledged as supreme. From pride the royal marriages are sometimes incestuous, and the king does not hesitate to espouse his own sister. Divorce is seldom practised, as mutual necessities and habits perpetuate the union of the poor; and the rich may choose a more compliant wife without dismissing the former. A temporary amorous intercourse is rather forbidden by the pride of the sex, than by any moral or legal considerations, being regarded as a brief marriage, and inconstancy as a divorce. Few women become nuns till they be advanced in years.

According to the same excellent author the Siamese funerals considerably resemble those of the Chinese*. The body is enclosed in a wooden bier or varnished coffin; and the monks called Talapoins, (perhaps from their *talapan*, or peculiar umbrella,) sing hymns in the Bali tongue. After a solemn procession the body is burnt on a funeral pile of precious woods, erected near some temple; and the spectacle is often rendered more magnificent by the addition of theatrical exhibitions, in which the Siamese excel. The tombs are in a pyramidal form; and those of the kings large and lofty. Mourning is not proscribed by the laws, as in China, and the poor are buried with little ceremony.

* i. 371.

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As we eat less in summer than in winter, so in general, nations inhabiting warm climates are temperate in diet. The common nourishment of the Siamese consists in rice and fish, both of which articles are abundant. They also eat lizards, rats, and several kinds of insects. The value of about one penny sterling sufficed to procure a poor man his daily pound of rice, with some dried fish and rack. The buffaloes yield rich milk; but butter would melt and become rancid, and cheese is unknown. Little animal food is used in Siam, mutton and beef being very bad; and while the Chinese indulge in all viands, the doctrine of Boodh rather influences the Siamese, and induces a horror at the effusion of blood. So that Siam in this, as in other respects, forms a medial point of comparison between China and Hindostan. Yet in grand festivals the Chinese manner is sometimes adopted.

The houses are small, and constructed of bamboos upon pillars, to guard against inundations so common in this country. They are speedily destroyed and replaced: and a conflagration, if a common, is at the same time, a slight calamity. Even the palaces only exceed the common habitations by occupying a more extensive space, and being constructed of timber, with a few ornaments: they are also of a greater height, but never exceed one floor. If they continue as Loubere describes them, they form a striking contrast with the splendid edifices of the Birmans: but it is probable that rivalry has produced greater pomp. Brick was, however, used in the construction of temples, and funeral pyramids. It is to be wished that Loubere had figured the latter as well as the former: and indeed to be regretted in general that a more intelligent voyager to Siam has not supplied any defects in his interesting narrative.

Personal Features. In person the Siamese are rather small but well made*. "The figure of the countenance, both of men and women, has less of the oval than of the lozenge form, being broad, and raised at the top of the cheeks: and the forehead suddenly contracts, and is almost as pointed as the chin. Besides their eyes, rising somewhat towards the temples, are small and dull, and the *white* is commonly completely yellow. Their cheeks are hollow, because the upper part is too high: mouth very large, with thick pale lips, and teeth blackened by art. Complexion coarse, brown mixed with red, to which the climate greatly contributes†."

From this description it would appear that the Siamese are much inferior in personal appearance to the Birmans: and rather approach to the Tataric or Chinese features.

Dress. The dress is extremely slight, the warmth of the climate rendering clothes almost unnecessary. A muslin shirt with wide sleeves, and a kind of loose drawers, are almost the only garments of the rich, a mantle being added in winter. A high conic cap covers the head. The women do not use the shirt but a scarf: and the petticoat is of painted calico, but with this slight dress they are extremely modest.

* Loub. i. 81.

† Kæmpfer, i. 29. calls them negroes, so dark did their complexions appear to him; and he compares their persons to apes.

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Amusements. The Siamese excel, as already mentioned, in theatrical amusements. The subjects are often taken from their mythology, and from traditions concerning their ancient heroes. According to Loubere the *Cone* is a kind of pantomime, with music and dancing: the *Lacone* is a serious drama, generally requiring three days to represent: the *Rabam* is a jocund dance by men and women. For an account of the other amusements, the reader must be referred to that intelligent voyager; who describes the races of oxen and those of boats, the combats of elephants, cock-fighting, tumbling, wrestling, and rope-dancing, religious processions, and illuminations, and the beautiful exhibitions of fire works. The men are generally indolent to excess, and fond of games of chance, while the women are employed in works of industry.

Language. Like the other languages of further India the Siamese has not been completely investigated, and compared with the adjacent tongues. There are thirty-seven letters, all consonants, while the Bali has thirty-three*. The vowels and dipthongs constitute a distinct alphabet. The R appears, which is not known to the Chinese, and the W. There is a considerable chant in the enunciation, as in other ancient languages: and as Europeans in general consider this change of voice as ridiculous, though really pleasant and strictly conformable to nature, it is in vain to attempt the just pronunciation of even Greek or Latin, till this prejudice be overcome, if it be not indeed invincible. There are no inflexions of verbs or nouns; and the idioms being very remote from those of Europe, any translation becomes very difficult. The words seem mostly monosyllabic, like the Chinese.

The Bali of the Siamese resembles that of the Birmans; but a curious topic of research would be to compare the vulgar tongues of exterior India.

Literature. In literature the Siamese are far from being deficient, and Loubere has well explained their modes of education.† At the age of seven or eight years the children are often placed in the convents of the Talapoins, where they are instructed in reading, writing, and accompts, for the mercantile profession is very general. They are also taught precepts of morality; but it is to be regretted that Boodh is not only the god of wisdom but of cunning, which is esteemed, if not a positive virtue, yet a proof of superior abilities, whence his followers ever attempt to overreach others. This singular perversion of the moral sense, by which honesty and sincerity are branded as marks of folly, is not unknown to some Europeans, but has not yet been adopted as a precept of religion: in this respect therefore the morals of the Chinese, and other oriental traders, must be computed by a new standard. Books of history are not unknown, and there is an excellent code of laws. Poetry, tales, and mythologic fables, seem to constitute the other departments of Siamese literature.

Cities and Towns. The capital city of the kingdom has been called Siam, by the vague ignorance of the Portuguese navigators. In the native language the name approaches to the European enuncia-

* Loub. ii. 73. † i. 180.

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tion of Yuthia. It is situated in an isle, formed by the river Meinam. The walls, in Loubere's time, were extensive; but not above a sixth part was inhabited. Its condition, since it was delivered from the Birman conquest in 1766, has not been described. Loubere's method is unhappily mingled and digressive, so that his information concerning the capital is suddenly interrupted by other topics. It must therefore suffice further to observe, that the royal palace was on the north; and that on the east there was a causy*, affording the only free passage by land. Distinct quarters were inhabited by the Chinese, Japanese, Cochin-Chinese, Portuguese, and Malays. Mandelslo seems to have lent some faith to the fables of that notorious voyager Pinto; but Yuthia has not impressed other writers in a respectable point of view. The temples, pyramids, and royal palace, seem greatly inferior in all respects to those of the Birmans.

The other chief towns in the Siamese dominions are Bankok, at the mouth of the Meinam; with Ogmo and others on the eastern coast of the gulf of Siam. On the western D'Anville marks Cham, Cini, and others as far as Ligor. Along the banks of the great river are Louvo and Porseloue, with others of inferior note. Loubere mentions Motac as the chief town on the north-west frontier. Louvo was a royal residence for a considerable part of the year. In general these towns were only collections of hovels, sometimes surrounded with a wooden stockade, and rarely with a brick wall. As there is no recent description of the country, it would be superfluous to dwell on old descriptions of places perhaps ruined in the frequency of oriental revolutions; while other cities may have arisen as yet unknown to geography.

In the south-west, Tanaserim and Merghi must seemingly be now regarded as Birman possessions; and the remaining fragment of the Siamese territory in that quarter presents no considerable town, though villages appear in Jonkseylon and some of the other isles.

Edifices. The industrious Kæmpfer, on his voyage to Japan in 1690, visited Siam; and his account, though brief, is solid and interesting. He minutely describes two remarkable edifices near the capital†. The first is the famous pyramid called Puka Thon, on a plain to the north-west erected in memory of a victory there obtained over the king of Pegu. It is a massy but magnificent structure, about 120 feet in height, in a square spot inclosed by a wall. The first stage is square, each side being about 115 paces long. The others vary in form; and there are open galleries ornamented with columns. At the top it terminates in a slender spire. He mentions the surrounding temples as being built of brick, whence it may be inferred that the pyramid is of stone‡, perhaps resembling those of the Birmans.

The second edifice consists of two squares to the east of the city, each surrounded with a fair wall, and separated by a channel of the river. They contain many temples, convents, chapels, and columns,

* This word being from the French *chaussee*, *causeway* seems an odd colloquial translation.

† i. 50.

‡ He especially mentions, i. 43, that many houses and some bridges in Yuthia were of stone: and he says, p. 45, that the temples exceed German churches in magnificence.

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particularly the temple of Berklam, with a grand gate ornamented with statues and other carvings: the other decorations were also, by his account, exquisite.

That intelligent voyager also describes some other edifices; and his ideas on the subject deserve to be contrasted with those of Loubere, who, accustomed to the pomp of Louis XIV, or disgusted by the massacre of his countrymen, may in this, and some other instances, have perhaps given unfavourable representations of this celebrated country.

Manufactures. Though the Siamese be an indolent, yet they are an ingenious people, and some of their manufactures deserve praise. Yet the ruinous and despotic avarice of the government, crushes industry by the uncertainty of property. The service of six months, due by every subject to the sovereign, also proves an invincible obstacle. They are little skilled in the fabrication of iron or steel; but excel in that of gold, and sometimes in miniature painting. The common people are mostly occupied in procuring fish for their daily food, while the superior classes are engaged in a trifling traffic.

Commerce. Loubere gives us little or no intelligence on the nature of their commerce, passing, in his usual way, to the manner of signing names, the weights and measures, and the singular shape of their coins. Mandelslo informs us, that the commerce of Yuthia consisted in cloths imported from Hindostan, and various articles from China; in exports of jewels, gold, benjoin, lacca, wax, tin, lead, &c. and particularly deer-skins, of which more than 150,000 were sold annually to the Japanese. Rice was also exported in great quantities to the Asiatic isles.

The king was, by a ruinous policy, the chief merchant, and had factors in most of the neighbouring countries. The royal trade consisted in cotton cloths, tin, ivory, saltpetre, rack, and skins, sold to the Dutch*.

The following recent information is derived from a valuable collection†. "The productions of this country are prodigious quantities of grain, cotton, benjamin; saudal, aguallo, and sapan woods; antimony, tin, lead, iron, load-stones, gold, and silver; sapphires, emeralds, agates, crystal, marble, and tambac."

* Loub. i. 286. † Dalrymple's Oriental Repertory, p. 118.

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CHAPTER IV.

NATURAL GEOGRAPHY.

CLIMATE AND SEASONS.—FACE OF THE COUNTRY.—SOIL AND AGRICULTURE.—RIVERS.—LAKES.—MOUNTAINS.—BOTANY.—ZOOLOGY.—MINERALOGY.

CLIMATE AND SEASONS. THE two first months of the Siamese year, which correspond with our December and January, form the whole winter of this country; the third, fourth, and fifth, belong to what is called their little summer; the seven others to their great summer*. Being on the north of the line, their winter of course corresponds with ours; but is almost as warm, says our author, as a French summer. The little summer is their spring; but autumn is absolutely unknown in their calendar. The winter is dry; the summer moist; the former is distinguished by the course of the wind, which blows almost constantly from the north, refreshed with cold from the snowy mountains of Tibet, and the bleak wastes of Mongolia.

FACE OF THE COUNTRY. This country, as already mentioned, is a wide vale between two high ridges of mountains, thus somewhat resembling Egypt on a wider scale. Compared with the Birman empire, the cultivated level is not above half the extent either in breadth or length. Nor do the Siamese seem so industrious as the Birmans, as their agriculture does not appear to extend far from the banks of the river and its branches; so that towards the mountains there are vast aboriginal forests filledwith wild animals, whence the numbers of deer and other skins exported as merchandize. The rocky and variegated shores of the noble gulf of Siam, and the size and inundations of the Meinam, conspire with the rich and picturesque vegetation of the forests, illumined at night with clouds of brilliant fire-flies, to impress strangers with delight and admiration.

SOIL. The soil towards the mountains is parched and unfertile, but on the shores of the river consists, like that of Egypt, of an extremely rich and pure mould, in which it is even difficult to find a pebble. It is in fact a muddy deposition, accumulating from early ages, and matured, as it were, by regular inundations, so as to produce exuberant quantities of rice. The country would be a terrestrial paradise, were it not subject to the most absurd despotism, which impoverishes itself, and may perhaps be classed among the worst

* Loub. i. 53.

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of governments, being far inferior to that of their neighbours the Birmans.

Agriculture. Agriculture, as usual in the east, is simple and primitive. The chief product is rice of excellent quality; but wheat is not unknown, in lands not subject to the inundations. Peas, and other vegetables also abound. Maize is confined to their gardens. From indolence or prejudice seldom more than one annual crop is taken from the same land*.

Rivers. The grand river Meinam, a name which signifies the *mother of waters*, reigns supreme among the Siamese streams. Louberet asserts that this river is so small when it enters the dominions of Siam, that for about fifty leagues it can only convey small boats, not capable of carrying above four or five persons. By his account it is afterwards swelled, at the town of Laconcevan, by another considerable river from the north, also called Meinam; but this in our modern mapsǂ is a mere reunion of a branch of the river; and this error of Loubere may lead us to suspect his information concerning the smallness of the stream, which may probably be only impeded by *rapides*, or declivitous cataracts. On the contrary, when we consider the regular inundations, resembling those of the Nile and Ganges, rivers of long course, and other circumstances, there is room to infer that the Meinam is of a more distant and higher extract than from the mountains of Yunnan in the west of China; and that the Tibetan Alps furnish its source in that of the Nou Kian of the lamas, supposed to be the Thaluan or river of Martaban, which has no delta, nor any marks of so distant an origin, but is represented by Loubere and D'Anville as a short and insignificant stream.

However this be, the Meinam is deservedly celebrated among the oriental rivers. Kæmpfer informs us that it is very deep and rapid, always full and larger than the Elbe||. He adds that the inhabitants suppose its source to be in the mountains which give rise to the Ganges, and that it branches through Cambodia and Pegu, an account somewhat confirmed by the discovery of the river Anan, which connects the Meinam with the river of Cambodia. But they fabled that other branches passed through immense forests even to the Ganges. The inundations are in September, after the snows have greatly melted in the northern mountains, and the rainy season has commenced. In December the waters decline, and sink by degrees to their former level. The same intelligent traveller informs us, that the water in the earth swells before the river rises: that the wells are nitrous, but the water of the Meinam, though muddy is pleasant and salutary: that the inundations are chiefly perceivable towards the centre of the kingdom, not near the sea, the causes being somewhat exhausted: that the rice is reaped in boats, and the straw left in the water: that a festival is celebrated in December, when the wind begins to blow from the north, and the inundation abates.

The banks of the Meinam are generally low and marshy, but thickly peopled from Yuthia to Bankok, below which are wild deserts

* Loub. i. 50, who has engraved the Siamese plough. † i. 7.
ǂ D'Anville however follows Loubere. || i, 67. Fr. edit.

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like the Sunderbunds of the Ganges. Monkeys, fire-flies, and moskitoes, swarm on the fertile shores.

To the north of the Siamese dominions some rivers join the Meinam; but their names are unknown, and they belong to the Birman territories. The same observation may be applied to the river Tánaserim, and that of Tavoy. In the south-east is that of Shantebon; and a stream which joins the delta of the Meinam.

Lakes. In the east of the kingdom a small lake is delineated, giving source to a river which flows into that of Cambodia; and it is probable that others may exist near the mountains, though unknown to geographers.

Mountains. The extensive ranges of mountains which inclose this kingdom on the east and west have been repeatedly mentioned. These may be called the Siamese chains, till the native names be ascertained. A small ridge also passes east and west, not far to the north of Yuthia, which Loubere seems to call Taramamon. In the north Siam terminates in plains; nor does it, even by conquest, seem ever to have reached the mountains on the Chinese frontier.

Forests. The forests are numerous and large, and produce many kinds of valuable woods; but the teak is not mentioned.

Zoology. The chief animals of Siam are elephants, buffaloes, and deer. Horses seem little known or used, though found wild in Tibet: yet there are, or were, a few ill-mounted cavalry. The elephants of Siam are of distinguished sagacity and beauty: and those of a white colour are treated with a kind of adoration, as the Siamese believe the soul of such is royal. Wild boars, tigers, and monkeys, are also numerous. The Meinam is, at distant intervals of time, infested with small poisonous serpents; and the trees on its banks are, as already mentioned, beautifully illuminated with swarms of fire-flies, which emit and conceal their light as uniformly as if it proceeded from a machine of the most exact contrivance.

Mineralogy. Mandelslo, or rather his translator Wicquefort, who added, about the year 1670, the accounts of Pegu, Siam, Japan, &c. informs us that Siam contains mines of gold, silver, tin, and copper. Loubere dedicates a whole chapter to the Siamese mines; and expresses an opinion that they were in preceding ages more industriously wrought, as the ancient pits evinced; not to mention the great quantity of gold, which must have been employed in richly gilding the idols, pillars, ceilings, and even roofs of their temples. In his time, though Europeans were employed, no mine of gold or silver could be found which was worth the working. Yet some copper mines were discovered, which yielded a small proportion of gold: and a larger proportion constituted the metal called *tambac*. The best native tambac was found in the isle of Borneo. Le Blanc says that the Peguese had a mixture, probably artificial, of copper and lead, which they called *ganza*.

Loubere adds that a French physician employed by the Siamese monarch, had discovered antimony, emery, and some other minerals, with a quarry of white marble. He also boasted that he had found a mine of gold, which he concealed from the natives.

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But the mines chiefly wrought by the Siamese were of tin and lead. The tin called *calin* by the Portuguese, was sold throughout the Indies, but was soft and ill-refined, as it appeared in the tea-cannisters then used. Loubere adds that zinc was added to form tutenag; an error, for tutenag is a native mixture of zink and iron. In another passage he informs us that all the tin, except that of Junkseylon, was a royal perquisite*.

Near Louvo was a mountain of load-stone: and another in Junkseylon of inferior quality. Fine agates abounded in the mountains, nor were sapphires unknown; but the addition of diamonds seems doubtful, if the doubt be not a negation that so precious a substance should remain so long unknown. The *mines of steel*, mentioned by our author, seem to imply a pure iron easily converted into steel, or rather a carbonated ore of iron, which was however so little wrought that wooden anchors were used.

The chorography of Siam is too imperfect to supply any account of mineral waters, or natural curiosities.

Isles. Among the numerous and minute isles which owe a doubtful subjection to Siam, Junkseylon alone deserves mention, if it be not reduced under the power of the Birmans. By Captain Forest's account, who visited this isle in 1784, it annually exports about 500 tons of tin, and contains 12,000 inhabitants.

THE other states of exterior China are Laos, Cambodia, Siampa, Cochin-China, and Tunquin; countries unimportant in themselves, and concerning which the materials are imperfect.

LAOS.

ACCORDING to Kæmpfer† this was a powerful state, surrounded with forests and deserts; and difficult of access by water, because the river is full of rocks and cataracts. But by the newly discovered river of Anan the passage from Siam may perhaps be expedited. The soil is represented as fertile in rice; and Laos furnished the merchants of

* i. 287. † i. 40.

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Cambodia with the best benjoin and lacca. Exquisite musk is also brought from Laos, with some gold and rubies; and the rivers boast of the fresh water mya, which yields pearls. The religion and manners resemble those of Siam; but in personal appearance the people of Laos resemble the southern Chinese. The chief towns were in Kæmpfer's time, Landjam and Tsiamaja. The former is also styled Lantchang; and Sandepora is added in modern maps: from the former the people are called Lanjanese.

This kingdom, from its inland situation, is less known than any other state of further India, and scarcely any recent materials can be indicated. It remains an object of curious investigation to future travellers*. Du Halde has however published a route from China to Siam by land, in which some account is given of Lahos or Laos. In the language of the country *Mohang* signifies a town; and the capital is styled Mohang Leng by the Chinese†. It is of considerable extent, but only inclosed with a palisade: on the west are large forests and several rivers. This city stands on both sides of a river called Meinam Tai, which by the Chinese accounts joins the river of Siam, so that perhaps the Anan is to the south of the capital. Fish is rare, but buffaloe and venison are common in the markets. About five days journey to the north of Mohang Leng are mines of gold, silver, and copper; and one of rubies near the city: emeralds are also found of great size. Tin, red sulphur, (perhaps cinnabar,) cotton, tea, sapan or brazil-wood, are also exported. Laos was then tributary to Ava: but the chief trade was with the Chinese. Du Halde's account is not a little confused; and though he give the names of many provinces and towns, it would be impossible to construct a sketch of a map from his description. The chief river is styled Meinam Kong, which afterwards passes through Cambodia. It would seem that branches of the same river are distinguished by different names. In Mr. Dalrymple's valuable map of exterior India this grand stream is called the Kiou Long, or Maykaung; and Mr. Arrowsmith derives it from the Tibetan Alps, where it is styled the Satchou, and afterwards by D'Anville the Lan-tsan Kiang; which seems to identify it as implying the river of Lantsang, or Leng, the capital of Laos.

* The common accounts in geographical compilations are derived from Marini, an Italian Jesuit, whose account of Tunquin and Laos appeared about 1650, and a French translation 1661, 4to.

† i. 125.

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CAMBODIA.

THIS country is also called Camboja and Camboge; being partly maritime is known by repeated descriptions. Like Siam, it is inclosed by mountains on the east and west, and fertilized by a grand river, the Maykaung or Makon, near its estuary, from some absurd caprice, called the Japanese river. In the compilation by Wicquefort, styled the voyage of Mandelslo, it is said that this river begins to inundate the country in June. Near its mouth it is full of low isles and sand-banks, so that the navigation is impeded, and there is no port nor town. The country is thinly peopled, and the capital called Cambodia, perhaps because we know not the native term, consists only of one street, with a single temple. The most peculiar product is the substance styled gamboge, or rather Camboge gum, yielding a fine yellow tint. Ivory also abounds, with several precious woods: and some add gold. The country is fertile in rice, and animal food. There are many Japanese settlers, with Chinese and Malays, which last can scarcely be distinguished from the natives, who are of a dark yellow complexion, with long black hair.

It is unnecessary to enlarge on the old and trivial accounts of this country. M. Poivre* observes that, not far from the capital, the traveller sees with astonishment the ruins of an ancient city built with stone, the architecture somewhat resembling the European, while the adjacent lands are marked with furrows of former cultivation. Among the present possessors of the country no tradition exists concerning this city. But French travellers are often fond of the romantic; and this information remains to be confuted or confirmed†.

* 78.

† He tells us, p. 105, a similar tale of a brick wall near the capital of Cochin-China.

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SIAMPA.

THIS small maritime tract is to the south-east of Cambodia, from which it seems to be saparated by a ridge of mountains. Mr Pennant* informs us, from an old French narrative, that the people of this country are called Loyes; and are large, muscular, and well made, complexion reddish, nose rather flat, with long black hair: dress very slight†. The king resides at Feneri, the capital, and was tributary to Cochin-China. Productions, cotton, indigo, and bad silk. Their junks are well built, and are much employed in fishing.

COCHIN-CHINA.

THIS country, presenting an extensive range of coast, has been visited by many navigators, who have supplied considerable materials for its description. The name is said to imply western China, and appears to have been imposed by the early navigators, perhaps from the Malay appellation, while the native name remains unknown. In his account of the late embassy to China, Sir George Staunton has given a comparatively ample description of this country.

An usurper had extended his conquests over Tunquin, while the descendants of the former royal family were restricted to the southern districts. A considerable degree of civilization appeared, and it is said

* With D'Anville he spells the name Ciampa. Staunton, i. 364, puts Tsiompa, and says it appears from the sea as a sandy tract intersected with rocks.

† Outlines, iii. 51.

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that the people are of Chinese extract: nay some assert that this country was anciently a part of that great empire. The aboriginal savages, called Moos or Kemoos, are confined to the western range of mountains. As the shores abound with havens, the canoes and junks are numerous. The harbour, called Turon by Europeans, is a noble inlet, minutely described by our author. The country is divided into distinct provinces, the capital being Hue-fo, about forty miles to the north of Turon, which is called Han-san by the natives. It was reported that the garrison in Hue-fo amounted to not less than 30,000 men, armed with matchlocks, besides elephants of war. Sabres and pikes are also used.

The superior ranks are clothed in silk, and display the politeness of Chinese manners. The dress of both sexes is similar, being loose robes with large long sleeves; and cotton tunics and trowsers. A kind of turban covers the head of the men; but no shoes nor slippers are used. The houses are mostly of bamboo, covered with rushes or the straw of rice; and stand in groves of oranges, limes, plantains, and cocoa trees. Poultry abounds in the markets; and at an entertainment were served pork and beef, two porcupine quills supplying a knife and fork. An ardent spirit is drank distilled from rice, and the amusements of the theatre are not unknown. They evince some skill in the manufacture of iron, and their earthen ware is very neat. The rainy season is during September, October, and November; and the three following months are also cold and moist, presenting the semblance of an European winter. The inundations only last two or three days, but happen once a fortnight in the rainy season. Borri's account bears that the rains only continue for three days regularly in each fortnight: if true a singular phenomenon*. March, April, May, form a delicious spring; while the heat of the three following months is rather excessive.

The horses are small, but active: there are also mules, and asses, and innumerable goats. The products of agriculture, are rice of different qualities, yams, sweet potatos, greens, pumpkins, melons. Sugar abounds, and is excellently purified by a process described by Staunton. Gold dust is found in the rivers; and the mines yield ore of singular purity. Silver mines have also been lately discovered. Both metals are used in ingots, as in China. The little trade is chiefly conducted by the Portuguese from Macao.

Mr. Pennant mentions tigers, elephants, and monkies, as abounding in Cochin-China†; and that able naturalist adds that the edible birds' nests, esteemed a luxury in China, are chiefly found in this country. They are formed by a species of swallows from some unknown viscous substance; and the Dutch used to export great numbers from Batavia, gathered in the oriental isles, and on the coasts of this country.

The Paracels form a long chain of small islands with rocks and shoals, parallel to the coast of Cochin-China.

* Churchill's Col. vol. ii. † Outlines, iii. 65.

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TUNQUIN.

THIS country was only divided from the former by a small river and may at present be considered as incorporated with it by conquest. The inhabitants resemble their neighbours the Chinese, but their manners are not so civilized. The products are numerous, and seem to blend those of China with those of Hindostan. While the rivers in Cochin-China are of a short course, those of Tunquin spring from the mountains of Yunnan; and in the rainy season, from May to September, inundate the adjacent country. The chief is the Holi Kian, which, after receiving the Li-sien, passes by Kesho the capital. This city is described by Dampier, an observant voyager, as approaching the Chinese form, with a considerable population. There is no recent description of this country, which however rather resembles a Chinese province, and is lost in the consideration of that stupendous empire.

In the gulf of Tunquin, and adjacent Chinese sea, the tuffoons, or as they have been quaintly latinized, *typhons*, are tremendous. "They are preceded by very fine weather, a presaging cloud appears in the north-east, black near the horizon, edged with copper colour on the upper part, fading into a glaring white. It often exhibits a ghastly appearance twelve hours before the typhon bursts; its rage lasts many hours from the north-east, attended with dreadful claps of thunder, large and frequent flashes of lightning, and excessive hard rains. Then it sinks into a dead calm, after which it begins again with redoubled rage from the south west, and continues an equal length of time*."

The description of the various kingdoms of exterior India being thus completed, as far as the present design and the imperfect materials would admit, the geographical progress must turn to the westward, and discuss the wide regions of Hindostan, a difficult but interesting theme.

* Pennant, Outlines, iii. 76,

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HINDOSTAN.

INTRODUCTION.

GENERAL OBSERVATIONS.—ARRANGEMENT.—NATURAL AND POLITICAL DIVISIONS.—PLAN OF THE PRESENT DESCRIPTION.

General Geography. THE description of this interesting portion of Asia is not a little difficult, from its vast and irregular extent, from the want of grand subdivisions, from the diversity of nations and powers, large foreign settlements and other causes, so that the first object must be to determine a clear and natural arrangement. Far from being impressed with this circumstance, geographers seem desirous to increase the embarrassment, by including the regions called India beyond the Ganges, whence the confusion becomes more confounded.

Mr. Pennant, who often excels in geographical delineation, has, in his View of Hindostan, been contented with the vague divisions of Western, Eastern, and Gangetic, or that part which is pervaded by the Ganges and its tributary streams. His description is also in the form of an itinerary, of all others perhaps the least adapted to general geography. Major Rennell, to whom we are indebted for an excellent map and memoir, which have thrown great light on Indian geography, first considers the sea coasts and islands; as, in the construction of a map, the outline of the coast is the earliest object. He then describes Hindostan in four other sections: 1. That part occupied by the Ganges and its principal branches: 2. That occupied by the course of the Sindé, Sindeh, or river Indus: 3. The track situated between the river Kistna and the two former divisions: 4. The countries to the south of the Kistna, or what is perhaps improperly called the southern peninsula, as no part of Hindostan can be styled a peninsula, in the modern acceptation of being nearly surrounded by the sea, and if we introduce proximity of rivers, the number of chersenescs might appear infinite.

It might seem that an easy arrangement would arise from dividing Hindostan into the four points of Eastern, Northern, Western and Southern: but in this process the northern could not well be separated

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from the Western, as both are connected by the course of the Indus, and the deficiency of natural boundaries must be supplied by arbitrary and imaginary lines.

General Division. After long consideration, the general plan adopted by Major Rennell seems the best, not only in itself, as was to have been expected from his profound acquaintance with the subject, but, as having the advantage of being familiar to the public, from the widely diffused reputation of his work. Amidst the want of important ranges of mountains, rivers alone can be assigned as natural divisions; and as in Hindostan they do not form limits, the countries pervaded by their courses and tributary streams may be considered as detached by the hand of nature. Hence the Gangetic part of Hindostan, to use Mr. Pennant's term, includes the space from the confines of Tibet to the sources of the Chumbul and Sippra, and from the mountains near Agimere and Abugur hills, to the most eastern boundary of Hindostan.

That portion watered by the Sindé or Indus, and its subsidiary streams, may in like manner be termed Sindetic Hindostan; as a supplement to this division may be considered the country of Sirhind, and other tracts to the west of Gangetic Hindostan.

The southern part is encompassed by the sea, except on the north, where the river Kistna and its subsidiary streams form the boundary. In ancient times this portion was styled Deccan, a native term implying the south. But the Deccan of the Hindoos extended twice as far in a northerly direction, even to the river Nerbudda; so that it would in fact, with the Gangetic and Sindetic divisions, nearly complete the whole of Hindostan. The term Deccan is therefore here used for the portion to the south of the Kistna.

That portion on the north of the Kistna, reaching to Gangetic Hindostan on the north and east, and the Sindetic with its supplementary provinces on the north and west, may be styled interior or Central Hindostan*.

In this arrangement the Gangetic part will include Bengal, Bahar, Allahabad, Oude, Agra, and a part of Delhi and Agimere. The Sindetic contains Kuttore, Cashmir, Cabul, Candahar, Lahore, Moultan, and Sindé.

The central division represents Guzerat in the west, with Candeish, Berar, Orissa, the Sircars, the chief part of Golconda, Visiapour, Dowlatabad, and Concan.

The southern division includes a small portion of Golconda, Mysore, the extensive region called in modern times the Carnatic, with Madura, and other smaller districts, the western coast being called that of Malabar, and the eastern that of Coromandel. In this part is naturally included the island of Ceylon.

Political Division. The next topic to be considered, in a general view of Hindostan, is its political situation as divided among

* If scientific geographers had the privilege, usurped by travellers and mariners, of imposing new names and divisions, the above partitions might be styled in native terms Gangestan, Sindestan, while Deccan might be confined to the southern part, and some native word applied to the middle or centrical division.

various powers. Of these the English is at present preponderant, not only from European tactics, but from an actual extent of territory at least equal to that of any native power. To our former wide possessions in Gangetic Hindostan, with a large portion of the eastern coast from below the estuary of the Kistna to the lake of Chilka, and the detached government of Madras, have been recently added extensive regions in the south and west of Mysore, with Seringapatam the capital, not to mention Bombay, and other detached establishments. And the large and important island of Ceylon has been wrested from the Dutch.

Next in consequence are the Maratta states, chiefly contained in the central division of Hindostan.

The Nizam, or Soubah of the Deccan, our firm ally, has considerably enlarged his territory in the south at the expense of Tippoo; the central part of whose dominions, except Seringapatam, is subject to the raja of Mysore, a descendant of the race dethroned by Hyder, an usurper.

The British, the Marattas, and the Nizam, may be regarded as the three leading powers, to which may be added on the west, or on the Sindetic division, the Seiks, and Zemaun Shah, or whatever prince holds the eastern division of Persia.

The following table, extracted, with a few alterations, from Major Rennell's memoir, will convey a more complete and satisfactory idea of this important topic.

I. BRITISH POSSESSIONS.

1. Bengal and Bahar, with the Zemindary of Benares.
2. Northern Sircars, including Gumtoor.
*3. Barra Mahal, and Dindigul.
4. Jaghire in the Carnatic.
*5. The Calicut, Palicaud, and Coorga countries.

II. BRITISH ALLIES.

1. Azuph Dowlah. Oude.
2. Mahomed Alli. Carnatic.
3. Travancore, and Cochin.

III. MARATTA STATES.

POONA MARATTAS.	TRIBUTARIES.
1. Malwa.	1. Raja of Jyenagur.
2. Candeish.	2. ..... Joodpour.
3. Part of Amednagur, or Dowlatabad.	3. ..... Oudipour.
4. Visiapour.	4. ..... Narwah.
5. Part of Guzerat.	5. ..... Gohud.
6. ..... Agra.	6. Part of Bundelcund.
7. ..... Agimere.	7. Mahomed Hyat. Bopaltol.

* The countries thus marked, are acquisitions from Tippoo Sultan under the late treaty of Seringapatam. To which must now be added Coimbetore, Canara, and other districts acquired in 1799. See Rennell's Supplementary Map, dated 5th April, 1800

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8. Allahabad.
9. Shanoor or Sanore, Bancapour, Darwar, &c. situated in the Dooab, or country between the Kistna and Toombudra rivers.

8. Futty Sing. Amedabad.
9. Gurry Mundella, &c. &c.

BERAR MARATTAS.

1. Berar.
2. Orissa.

TRIBUTARY.

Bembajee.

IV. NIZAM ALLI, SOUBAH OF THE DECCAN.

1. Golconda.
2. Aurungabad.
3. Beder.
4. Part of Berar.
5. ..... Adoni, Rachore, and Canoul.
6. Cuddapali. Cummum (or Combam) and Gandicotta (or Ganjecotta.)
7. Part of Gooty, Adoni, & Canoul.
8. Part of the Dooab.

[9. Other districts acquired in 1799.]

V. SEIKS.

Lahore, Moultan, and the western parts of Delhi.

As the other great power chiefly extends over Persia, and may be regarded as foreign, it only remains to mention the small states.

1. Successors of Zabeda Cawn. Sehaurunpour.
2. Jats.
3. Pattan Rohillas Furruckabad.
4. Adjig Sing. Rewah, &c.
5. Bundelcund, or Bundela.
6. Little Ballogistan.

To which may now be added the raja of Mysore.

The British possessions prior to the fall of Tippoo, 1799, were supposed to contain 197,496 square British miles, being about 60,000 more than are comprised in the united kingdoms of Great-Britain and Ireland: the number of inhabitants was computed at 10,000,000. The acquisition in 1799 probably adds 15,000 square miles, and the population subject to Great Britain is supposed to be twelve or 14,000,000*. The net revenue exceeded 3,000,000 before the cessions by Tippoo in 1792, computed at 400,000*l.*; while those in 1799, do not appear much to exceed half that sum. This great power and revenue of so distant a country, maintained in the midst of a highly civilized foreign nation, is perhaps unexampled in ancient or modern times.

The Marattas are divided into two states or empires, that of Poona or the western, and Berar or the eastern; each ruled by a number of chiefs or princes, who pay a nominal obedience to the paishwa, or sovereign. An account of the Marattas belongs to the central division of Hindostan. The Seiks, a new religious sect, first appeared in the middle of the seventeenth century, and have gradually become formidable to the neighbouring states. The Jats, or Jets, were a tribe of Hindoos, who, about a century ago, erected a state around the capital Agra.

* Sir William Jones says, 30,000,000. Is not this an orientalism?

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The Afghans, another peculiar people, originated from the mountains between Persia and India.

Before closing these general considerations with regard to this extensive country, it may be proper to observe that the name of Hindostan has been considered as synonimous with the empire of the Great Mogul. But the power of the Monguls, which commenced under Baber, 1518, was most eminent in the northern parts, the Deccan, or south remaining unsubdued till the time of Aurunzeb, 1678, when that region, with what is called the peninsula*, a few mountainous and inaccessible tracts only accepted, were either vanquished or rendered tributary to the throne of Delhi†. When Aurunzeb died in 1707, in his ninetieth year, the Mongul empire had obtained its utmost extent from the tenth to the thirty-fifth degree of latitude, (about 1750 British miles;) and about as much in length: the revenue exceeding 32,000,000 sterling, in a country where provisions are about four times as cheap as in England. The number of his subjects may be computed at about 60,000,000. But this great power declined so rapidly, that, within fifty years after his death, it may be said to have been annihilated, and the empire of the Great Mogul has vanished from modern geography.

Plan. The plan to be pursued, in the subsequent brief account of Hindostan, has been above indicated as divided into four parts; the regions on the Ganges, those on the Indus; the centrical and the southern. In three of these divisions the British possessions are powerful, if not predominant; and it is difficult to connect the political with the natural geography. Doubts may justly arise whether the British territories ought not to form a separate and distinct portion in a perspicuous arrangement, this being another of the peculiar difficulties which attend the geography of Hindostan. But as the grand mass of the population in these settlements consists of native Hindoos, and the natural geography of the country must not be sacrificed to any extraneous consideration, it still seems preferable to abide by the division already laid down. If indeed the political geography were preferred, in describing this vast portion of Asia, any such arrangement would prove of a most fleeting and temporary complexion, as the revolutions and variations are so frequent and rapid. Hence that form of description must be chosen, which, resting on the perpetual foundations of nature, cannot be injured or obliterated by the destinies of man.

These considerations being premised, a similar arrangement shall here be followed in describing Hindostan, a labyrinth of eastern geography, with that used in delineating Germany, that labyrinth of European geography. A general view of the whole region shall be followed by successive chapters on each of the above divisions; in which the several states, chief cities, and other geographical topics, shall be briefly illustrated.

* Is not this absurd term of peninsula, which Major Rennel justly blames, derived from Guthrie, or De la Croix?

† Rennell's Memoir, page lxi.

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CHAPTER I.

GENERAL VIEW OF HINDOSTAN.

NAME.—BOUNDARIES.—ORIGINAL POPULATION.—PROGRESSIVE GEOGRAPHY.—HISTORY.—CHRONOLOGY.—HITORICAL EPOCHS.—ANCIENT MONUMENTS.—MYTHOLOGY.—RELIGION.—GOVERNMENT.—LAWS.—POPULATION.—GENERAL REVENUES.—POLITICAL IMPORTANCE.—MANNERS AND CUSTOMS.—LANGUAGES.—LITERATURE.—ANCIENT CIVILIZATION.—UNIVERSITIES.—INLAND NAVIGATION.—MANUFACTURES.—NATIVE PRODUCTS.—CLIMATE AND SEASONS.—GENERAL FACE OF THE COUNTRY.—SOIL.—RIVERS.—LAKES.—MOUNTAINS.—DESERT.—FORESTS.—BOTANY.—ZOOLOGY.—MINERALOGY.—MINERAL WATERS.—NATURAL CURIOSITIES.

NAME. THE native name of this celebrated country is said to be in the ancient Sanscrit language Bharata*. That of Hindostan seems to have been imposed by the Persians, and derived, like the classical name India, from the great western river, with the Persian termination *Tan*, or *Stan*, which signifies a country. It was long known, as already mentioned, by the name of the empire of the Great Mogul, because it was then subject to Mongul emperors, successors of Timur.

BOUNDARIES. This portion of Asia extends from cape Comari, called by navigators Comorin, in the south, to the mountains which form the northern boundary of Cashmir; that is, according to the most recent maps, from about the eighth to about the thirty-fifth degree of northern latitude, being twenty-seven degrees, or 1620 geographical miles, nearly equal to 1890 British. The northern boundary may be yet further extended to the Hindoo Koh, and mountains running east and west on the north of the province of Kuttore.

From the river Araba, on the west of the province of Sindi, to the mountains which divide Bengal from Cassay and the Birman dominions, that is from about the sixty-sixth to the ninety-second degree of east longitude from Greenwich, there are twenty-six degrees, which in the latitude of twenty-five degrees, constitute a breadth of more than 1400 geographical miles, or 1600 British. Comparatively, if we exclude Scandinavia, the former kingdom of Poland, and the Russian empire, the extent may be considered as equal to that of the remainder of Europe.

The boundaries are marked on the north by the mountains above mentioned. On the west towards Persia, other ranges and deserts constitute the frontier till the southern separation end in the river of

* Rennell, xx. from Wilkins: but the proper native term seems to be Madhyama, and Bharat was the first king. As. Res. i. 149.

Araba. The other boundaries are supplied by the Indian ocean, and Bay of Bengal, where the eastern extremity is limited by the little river Naaf, and those mountains which divide the British possessions from Aracan, Cassay, and Cashar. The northern boundary generally consists of the southern ridges of the Tibetan Alps. On the north-east of Bengal a similar ridge divides Hindostan from the small territory of Asam, which seems an independent state, never having formed a portion of Hindostan, of dubious connection with Tibet, and as yet unsubdued by the Birmans.*

ORIGINAL POPULATION. The original population may be generally considered as indigenous, or in other words peculiar to the country. Yet in so extensive a region, and amidst the great diversity of climate and situation, the native race presents considerable varieties, especially as being fairer in the northern parts, and in the southern almost or wholly black, but without the negro wool or features.† Still the tinge of the women and superior classes, is deep olive, with sometimes a slight and agreeable mixture of the ruddy, and the Hindoo form and features may be said to approach the Persian or European standard. The sole ancient conquests of Hindostan having proceeded from the north-west and west, there may be some slight admixture of the Persians, of the Greeks of Bactriana, of the ancient Scythians, who appear to have proceeded from Imaus, and to have held a considerable country on the Indus, being the Indo-Scythæ of antiquity. More recently Mahmud of Ghizni, introduced a groupe of Mahometans of various origins. The Patans, or Afgans, proceeded from the mountains towards Persia, being asserted to be a tribe of Albanians who emigrated to the eastward.‡ The Monguls are well known to have included many Tatars, and Mahometan tribes from the east of the Caspian. These, with the Arabs and Persians, are generally called Moors.

PROGRESSIVE GEOGRAPHY. The progressive geography of Hindostan may be said to begin with the victories of Alexander the Great, for the fables concerning Sesostris and Bacchus deserve no attention; and though the Persians appear to have made early conquests, and to have possessed no small knowledge of India, yet their science was lost to civilized Europe. After the age of Alexander many Greek

* A description of Asam may be found in the second volume of the Asiatic Researches, page 171, octavo edit. and some idea of this country will be given in the account of the river Burrampooter, which will follow that of the Ganges.

† Yet even in speaking of Bengal Sir William Jones terms the natives *blacks*. He says, As. Res. IV. xxiii. that in Hindostan there are not less than thirty millions of *black* British subjects.

‡ The Avghans, or Afgans, pretend that their founder removed from the mountains of Armenia to those of Candahar. Colonel *Gaerber* takes it for granted that the Afghans whom he found near Derbent, were descendants of the Albani; and Dr. *Reinegge* contends that the names of the two people are in fact the same. The Armenians (says he) cannot pronounce the letter L. in the middle of a word, but call the Albans Agvhans, as they call Kalaki, Kaghaki, &c. Ellis's Memoir, page 6. Sir William Jones, As. Res. ii. 76, warmly recommended an inquiry into the history of the Afgans, and says that their language resembles the Chaldaic. It should be compared with that of the other Caucasian tribes.

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and Roman authors, particularly Strabo, Arrian, and Pliny, have left information concerning the state of India. One of the most important ancient records is the description and map of Ptolemy, but they are so much distorted as to embarrass the most learned inquirer. Far from representing India in its just form, as stretching far to the south, he supposes the ocean to flow from the gulf of Cambay, almost in a line to the lake of Chilka, thus immersing under the waves a third part of Hindostan. At the same time he assigns to the island of Taprobana, or Ceylon, an enormous and fabulous extent. This, the most singular error of his whole system, has been attempted to be explained by M. Gossellin,* who supposes that the Taprobana of Ptolemy is the Deccan, or southern part of Hindostan, from Surat to Cape Comorin, a strait being supposed to pass from the gulf of Cambay to the eastern shore of Orissa; and he infers that some of the ancients believed in this strait. The idea is ingenious, and ably illustrated, yet is far from being satisfactory. 1. Ptolemy's map of Taprobana is a tolerably just representation of Ceylon; and the numerous islands which he places near it are the Maldives; which, in a fair acceptation of his sense, must have been much further to the north, to have corresponded with Gossellin's opinion. The Ganges of Taprobana is the Mowil Ganga of Ceylon: the Soana, in the west, may also have a corresponding modern name, but cannot be the Soan which runs to the east into the great Ganges. 2. Taprobana is thinly peopled with a few tribes, unknown in ancient descriptions of India; and the whole form, and central ridge of mountains bear no resemblance whatever to the Deccan, but on the contrary approximate nearly to those of Ceylon. 3. The long strait mentioned by Gossellin is unknown in the map of Ptolemy, which on the contrary rather justly represents the sea between the coast of Coromandel and Ceylon, and his isle of *Cory* seems to be that now corruptly called *Cow* island: on the contrary a long strait must have been necessary, if Ptolemy had intended the Deccan, which is far wider in the north, than in the south; whereas Taprobana is represented narrower, like Ceylon. 4. The *Commaria* of Ptolemy seems palpably to represent Cape Comari, or Comorin, and that geographer justly adds that it is an *extreme* promontory: in like manner other rivers, regions, towns, &c. may be traced in Ptolemy's India, which really belonged to the Deccan, though the latitudes be very erroneous.

Upon the whole it seems evident that Ptolemy has been misled in his delineation of India, by information so grossly fallacious as cannot be easily accounted for; but the candid apology of an able judge ought not to be omitted, especially as it relates to the greatest error of the father of geographical precision.† "We ought to reflect that Ptolemy's ideas were collected from the people who sailed along the coast, and who described what they had seen and heard without regard to what lay beyond it: and moreover made use of too wide a scale; as commonly happens when the sphere of knowledge is confined, and the geographer works *ad libitum*, from the coast towards the interior of an unknown continent. Whoever consults Ptolemy's map of India should carry these ideas in his mind: that the construction of it is founded on

* Geographie des Grecs Analysee, page 133. † Rennell, 241.

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three lines; one of which is that of the whole coast, from the gulf of Cambay round to the Ganges; a second, the course of the Indus, and the gulfs of Cutch and Cambay; and the third, the common road from the Panjab to the mouths of the Ganges. The objects within these lines have a relative dependance on each line respectively; and are invariably placed at too great a distance within them: it therefore happens that an object which should have occupied a place near one of the lines is thrust towards the middle of the map; and this being a general case, places on opposite sides of India are crowded together, as Arcot and Sagur *(Sagheda)* are. At the same time the central parts are wholly omitted; as being in reality unknown." Our learned geographer does not however explain how Ptolemy's map of Ceylon happened to represent that island five times too large. A similar instance indeed occurs in Bishop Leslie's map of Scotland, in which the isle of Hirta, or St. Kilda, is represented as three times as large as Mull; and perhaps the extent of Taprobana was in like manner swelled from its celebrity; or drawn by some mariner, and followed by Ptolemy in his description without observing the size of the scale.

However this be, there can be no doubt that D'Anville, in his large map of the world as known to the ancients, 1763, has in general assigned the names given by Ptolemy to their just positions, though Gossellin correct with great justice that able geographer's delineation of India beyond the Ganges. It would be foreign to the present purpose to enter into any detail; but a few names of rivers may be indicated.

After the Indus the rivers delineated by Ptolemy on the western coast are the Mophides, the Namadus, followed by a large river with a Delta called the Nanaguna, which is succeeded by two small streams, the Pseudastomus and the Baris. It is well known that no river of any length flows to the west, after passing the Taptee of Surat, but navigators unacquainted with the interior may easily have mistaken creeks for estuaries; and D'Anville supposes that Baris, the most southern, is in the neighbourhood of Goa. It is however to be wished that a map of ancient India were constructed from Ptolemy, and other authorities, applied to the recent information contained in Major Rennell's excellent map. Nor is it easy to conceive how D'Anville came to delineate a false Ganges, in the centre of the eastern coast, instead of the Manda, or the Tyndis of Ptolemy?

This celebrated country received little further illustration till the sixth century, when the intelligence of Cosmas is of no consequence, except as it elucidates the Persian traffic with India. Some materials may also be derived from the accounts of the Mahometan travellers, in the ninth century; and the oriental works of geography; nor was the great English king, Alfred, incurious concerning this celebrated region.* Marco Polo, the father of eastern geograpy, as known to Europeans, was followed by other travellers; and at length the Por-

* The Saxon chronicle, and other English writers mention that Suithelm Bishop of Shireburn carried a present from Alfred to the shrine of St. Thomas in India, and returned in safety with some curiosities from the country. This Thomas was not the Apostle but some Nestorian missionary; and his shrine is at Melapour, near Madras, on the coast of Coromandel. Alfred little foresaw that an English settlement was to include this holy ground.

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tuguese discovery of the Cape of Good Hope gradually led the way to the precision of modern knowledge; to which a recent geographer, Major Rennell, has contributed with great success, and deserved celebrity.

HISTORY. The history of Hindostan is a most obscure and embroiled subject, as either no native chronicles were written, or they were destroyed by the Bramins, anxious to obliterate the memory of former and happier ages, when their inordinate power was not established. Sir William Jones, and Anquetil du Perron, have bestowed some attention on this subject; but their investigations are more interesting to the antiquary than to the general reader.* The native traditions seem to describe the nothern part of Hindostan as subject to one Raja, or Sovereign; which is little propable, as the most ancient extraneous accounts represent this wide country divided, as was to be expected, into many monarchies. By all accounts however the Deccan, or southern part, was subject to a distinct emperor, even to modern times. Major Rennell observes that Ferishta's history of the Deccan opens to our view the knowledge of an empire that has scarcely been heard of in Europe. "Its emperors of the Bahmineah dynasty, (which commenced with Hassan Caco, A. D. 1347,) appear to have exceeded in power and splendor those of Delhi, even at the most flourishing periods of their history. The seat of government was at Calberga, which was centrical to the great body of the empire, and is at this day a considerable city. Like other overgrown empires it fell to pieces with its own weight: and out of it were formed four potent kingdoms, under the names of Visiapour, (properly Bejapour), Golconda, Berar, and Amednagur; of whose particular limits and inferior members we are not well informed. Each of these subsisted with a considerable degree of power until the Mogul conquest; and the two first, as we have seen above, preserved their independency until the time of Aurungzeb."†

CHRONOLOGY. The Hindoo chronology, published by Anquetil du Perron, is that of the Ragias, Rajas, or sovereigns of Bengal; and the most remarkable facts are repeated invasions by the Persians, one of them supposed to be fourteen centuries before the christian era. This kingdom of Bengal seems to have included almost the whole of Gangetic Hindostan, being perhaps that of the Prasii, or Gangaridæ of classical authors. But the names and extent of the early kingdoms of Hindostan are little known or investigated, and no credit can be lent to the fabulous poems, tales, and traditions, which represent this immense country as subject to one sovereign, an event which probably never occurred, till the reign of Aurungzeb, and may probably never again happen.‡

* Asiatic Researches, vol ii. and Bernoulli's collection concerning India, Berlin, 1786, 4to tome ii. (not *Bernouilli*, as Dr. Robertson always spells the name)

† Rennell, lxxix.

‡ Alexander found two or three kingdoms in the Panjab, and the great Porus had only an army of 34,000. The Arabic travellers in the 9th century mention the *Balhara*, the most powerful prince in India by all the oriental accounts, in Guzerat. He is the *Belbar* of Abulfeda, who extends his dominions to Chanbalic, or China.

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Historical Epochs. The Hindoo epochs consisting of millions of years, and other fabulous circumstances, have hitherto attracted more attention than a clear arrangement of the Hindoo sovereignties, and an account of the most authentic facts that can be recovered concerning them. While these chronologies differ by one or two thousand years concerning the incarnation of Buddha, we may judge of their exactness in less important events. Nor is it necessary to dwell on the children of the sun and moon, who reigned at Audh and Vitora; or the new dynasty of Magadha, or Bahar. The seventy-six princes, who are said to have reigned one thousand three hundred and ninety-nine years in Avabhriti, a town of the Dacshin, or south, which we commonly call Deccan, are slightly mentioned by Sir William Jones, who, with all his learning and talents, appears to be bewildered in the mist of Sanscrit mythological history.

Suffice it to observe that the Hindoos never seem to have boasted of one native historian, and the best materials are derived from Persian memoirs; from which Ferishta, himself a Persian, compiled his histories of Hindostan towards the beginning of the seventeenth century. Indeed in the whole complex maze of Hindoo literature there is a striking deficiency of good sense.* The more we are acquainted with Indian philosophy, the less veneration we entertain; and are led to infer that the admiration of the ancients was rather excited by the singularity than by the wisdom of the Brahmans. The heat, and other peculiar circumstances of the climate have confessedly a degrading influence on the mind, which instead of bearing solid fruits here shoots into fantastic flowers. The political institutions must have been originally bad, as the great mass of the people was oppressed by one or two privileged casts, whence the dispirited natives were conquered by every invader. And the absurd philosophy of the Brahmans, for that philosophy must be absurd which delights in mythological dreams, the most fanatical practices, and common suicide; which may be said to crush all genius or exertion by the oppressive chains of cast, unknown to nature and providence; which has never in peace or war produced one man distin-

In the tenth century Massoudi describes Hindostan as divided into four kingdoms: 1. On the Indus, capital Moultan: 2. Canoge on the Ganges, perhaps including Bengal on the east: 3. Cashmir: 4. Guzerat, the sovereign of which he calls the Balhara. He had himself visited the country. Roberts. 225.

It seems clear that Hindostan, like other countries, became gradually reduced to fewer sovereignties: and the tales of the Bramins, or Ferishta, a modern author, can never overturn these facts.

Add the recent discovery of the kingdom of Carnada, in the south; of which the capital was Bijanagur (View of the Deccan 1791, and Rennell's last memoir). Scaliger de Subtil. mentions that the diamond was found fifteen days journey beyond this city, in the mountain of Ahingar: this implies Golconda.

* Mr. Bentley observes, As. Res. v. 315. that the Hindoo eras and dates are all blended together into one mass of absurdity and contradiction. A curious instance of this appears with regard to the celebrated temples of Ellora, and the singular fortress of Deoghir, or Dowlatabad, formed on a high conic rock; for the Mahometans, whom we Europeans regard as rather extravagant in chronology, say that they were erected 900 years ago; while the Bramins affirm that they have stood not less than 7894 years! As. Res. vi. 385.

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guished by supereminent talents; such philosophy must be considered as far inferior to the plain good sense even of some other Asiatic nations. In short the history of Hindostan has only to be contrasted with that of China, to evince the superiority of practical good sense over theoretic wisdom and philosophy, which are often mere hotbeds of new eccentricities and follies. And though mankind have in all ages wondered at the singularities of the Indian sophists, yet not one general precept of wisdom, not one rule for the conduct of life, not one discovery generally useful to mankind, can be traced to that celebrated and miserable country, where passive millions drag a feeble existence under the iron rod of a few crafty casts, amidst a climate and a soil almost paradisaical, and where it seemed impossible for human malignity to have introduced general degradation and distress.*

As there is thus no native history, and we know little more from their traditions, than that the empire of Hindostan proper in the north was distinct from that of Deccan in the south, we must be contented with the epochs derived from foreign records.

1. The invasion by Alexander the Great, who found western India divided among numerous potentates, though he advanced little further than Lahore. If even the northern half of Hindostan had been subject to one sovereign, as fabled in the native tales, the circumstances would have been clear and apparent.

2. At a long interval appears the conquest of the north-western part by Mahmoud of Ghizni, A. D. 1000.

3. The dynasty of the Patan, or Afghan emperors begins with Cuttub, A. D. 1205, and ends with Mahmoud III, 1393.

4. The Great Moguls, or Mongul Emperors begin with Baber, 1525; and continued, with a short interruption, by the Patans to Shah Aulum, 1760.

The invasion by Timur, and at a distant interval that by Nadir, also form remarkable epochs in the history of this passive country. The latter may be said to have virtually dissolved the Mogul empire. The Portuguese settlements were followed by those of the Dutch. The French power began to predominate in 1749, but speedily closed in 1761, with the loss of their principal settlement, Pondicherry. As merchants the English had long held small settlements in Hindostan, but the expedition into Tanjore, 1749, was the first enterprize against a native prince. Other contests followed concerning Arcot in the kingdom of Carnada, or what we call the Carnatic. In 1756 the fort of Calcutta,

* A writer in the Asiatic Researches (vi. 163.), after observing that the worship of Boodha extended over all Hindostan, and was not rooted out in the Deccan, till about the twelfth century by the Bramins, who are the real heretics, and far from introducing any reformation have increased all the absurdities and puerilities a thousand fold, proceeds to give the following just character of those visionary sophists. "No useful science have the Brahmens diffused among their followers; history they have totally abolished; morality they have depressed to the utmost; and the dignity and power of the altar they have erected on the ruins of the state, and the rights of the subject. Even the laws attributed to Menu, which, under the form in use among the Burmas, are not ill suited for the purpose of an absolute monarchy, under the hands of the Brahmens have become the most abominable and degrading system of oppression, ever invented by the craft of designing men."

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our chief settlement in Bengal, was taken by the nabob, and many of our brave countrymen perished in a shocking manner, from being confined in a small chamber. The battle of Plassy, fought in June, 1757, laid the foundation of the subsequent power of Britain. Lord Clive, governor of Bengal, 1765, obtained a grant from the nominal Mogul of Bengal, Bahar, and part of Orissa, on condition of an annual tribute. Soon after the English were engaged in a contest with Hyder Alli, a soldier of fortune who had dethroned the lineal sovereign of Mayssur, or Mysore, and extended his conquests to the adjacent territories. Some conflicts followed on the confines of Carnada and Mysore; but the event was little advantageous to either party. Hyder dying in 1783 was succeeded by his son Tippoo, who seems to have been a prince of inferior abilities, and expiated his ill-arranged plans by his death, and the partition of his territories, in 1799.

The Bengal provinces have been in our possession since 1765; and Benares was added in 1775. This portion might constitute a considerable kingdom, and is sufficiently compact, and secure by natural advantages, independent of a formidable force. The Sircars, or detached provinces, partly belong to Golconda, and partly to Orissa, forming a long narrow slip of country from twenty to seventy-five miles wide, but about three hundred and fifty in length. The word Sircar is almost synonymous with an English county, implying a division of a Souba, or great province; and these detached Sircars, or counties, being to the north of Madras, on which they are dependent, are commonly styled the Northern Sircars*. In 1754 they were acquired by the French; and conquered by the English under Colonel Clive in in 1759.

The English settled at Madras about the year 1640; and their territory here extends about a hundred and eight British miles along the shore, and forty-seven in breadth, in the centre of the ancient kingdom of Carnada. The recent and extensive acquisitions in the south have been already mentioned.

Nor among the modern historical epochs of Hindostan must the celebrated battle of Panniput, not far to the north-west of Delhi, be omitted, which was fought in 1761, between the Mahometans under Abdalla king of Candahar, and the Marattas, in which the latter were defeated: the Mahometans were computed at 150,000, and the Marattas at 200,000.

Ancient Monuments. The ancient monuments of Hindostan are very numerous, and of various descriptions, exclusive of the tombs and other edifices of the Mahometan conquerors. Some of the most remarkable are excavated temples, statues, relievos, &c. in an island near Bombay; but the most magnificent and extensive are near the town of Ellora, about two hundred miles to the east of Bombay†. The latter are minutely described and illustrated with plates in the sixth volume of the Asiatic Researches to which the reader is referred. The idols represented seem clearly to belong to the present mythology of Hindostan; but at what period these edifices were modelled, whether three hundred or three thousand years ago, must be left in the dark-

* Rennell, cxxxiv. † As. Res. vol. i. and vi.

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ness of Hindoo chronology. Several ancient grants of land, some coins, and seals, have also been found. Yet all these remains little correspond with the exaggerated ideas entertained concerning the early civilization of this renowned country: while the Egyptian pyramids, temples, and obelisks, strongly confirm the accounts preserved by the ancient historians.

Mythology. Though the mythology of the Hindoos may pretend to great antiquity, yet their present form of religion is supposed to vary considerably from the ancient. It is inferred that while the religion of Boodha, still retained by the Birmans and other adjacent nations, was the real ancient system of Hindostan, the artful Bramins have introduced many innovations, in order to increase their own power and influence. Sir William Jones and other intelligent authors on the subject, are decidedly of this opinion, and caution us not to confound the ancient Brahmins with the modern Bramins. The chief modern deities are Brahma, Vishna, and Shiva, or the creator, preserver, and destroyer; while Boohda seems to have been the chief object of veneration in former periods. The mythology of Hindostan has been ably illustrated by Monsieur Roger, chaplain of the Dutch factory at Poolicat, on the coast of Coromandel, in his curious book entitled *La Porte ouverte*, and in more recent times by Sir William Jones, and other able inquirers. In a system so full of imagination it is no wonder that the analyses are sometimes discordant, but it appears that the fabric rests on that almost universal system of the east, the belief in a Supreme Creator too ineffable and sublime for human adoration, which is therefore addressed to inferior, but great and powerful divinities. The names and attributes of the gods and goddesses, for the voluptuous Hindoos delight in female divinities, are very numerous, and as human wants and ideas are almost universally the same, correspond in many instances with the Greek and Roman polytheism*.

Religion. The religion of the Hindoos is artfully interwoven with the common offices of life; and the different casts are supposed to originate from Brahma, the immediate agent of creation under the supreme power, in the following manner.

The *Brahmin*, from the mouth (wisdom): To pray, to read, to instruct.

The *Chehteree*, from the arms (strength): To draw the bow, to fight, to govern.

The *Bice*, from the belly, or thighs (nourishment): To provide the necessaries of life by agriculture and traffic.

The *Sooder*, from the feet (subjection): To labour, to serve†.

The ancients sometimes enlarged the number of these casts, or perpetual orders of men, by an erroneous subdivision of two or more, yet it is impossible to read their accounts without perceiving that the casts themselves existed from time immemorial, but with one important variation. For it would appear that in ancient times the Brahmins, like the priests, or monks, of Ava, Siam, and other states, which still

* In Sonnerat's decorated publication good representations will be found of the chief Hindoo divinities.

† Robertson's Disquisition, p. 338.

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follow the worship of Boodh, were not hereditary, or a distinct levitical tribe, but that any member of the other casts might enter into this order, which was of course deemed inferior to the chief secular, or military cast. At present the meanest Bramin will not condescend to eat with his sovereign. Setting the ridiculous and fanciful tales of this interested tribe wholly out of the question, it would appear that, in the usual circle of human affairs, a contest had arisen between the regal and ecclesiastic powers. The latter, instead of being subdued as in China, and Japan, acquired the superiority, as in Tibet. But in Hindostan, from a most refined and cunning policy, the priesthood asserted the divine institution of the several casts, and, as was natural, pronounced their own to be the supreme, and possessed of innate and hereditary sanctity. It seems to be allowed that Boodh was a deified philosopher; and it is probable that Brahma was the sophist who invented the new casts, and was not only deified, but placed in the first rank of the gods, by the grateful priesthood, the sole directors of the national mythology.

However this be, the religious tenets of the Hindoos are so artfully and closely interwoven with their existence, that they are as distinct, and peculiar a people as the Jews, and their conversion to christianity seems even more hopeless. If the Zingari, or Gipseys be, as is now credited, Pariars of the meanest Hindoo class, who fled from the cruelties of Timur, we may judge from the state of that singular tribe, in the various countries of Europe, for these four centuries, that if the Hindoos themselves should be scattered, they would remain, like the Jews, a marked and peculiar people.

Government. Hindostan is now divided into many governments, the form of which must be considered in describing the several states. Suffice it here to observe, that though the Bramins be the most dignified cast, yet there do not seem to have been one or more high priests, as in the surrounding countries. This singularity remains to be explained by learned inquirers. The sovereignty was abandoned to the military cast, and the monarch was presumed to be proprietor of all the lands except those belonging to the church. The Ryots held their possessions by a lease at a fixed rate, and considered as perpetual. The Zemindars were, in the opinion of some, only collectors of the royal rents from the Ryots, or farmers: but according to others the Zemindars were landed gentlemen, who had a hereditary right to these rents, upon paying a settled proportion to the crown. It is to be wished that the most liberal European forms were introduced into our own establishments, which might serve as a beneficent model to the surrounding nations.

Laws. The laws of the Hindoos are intimately blended with their religion, and the curious reader may consult the code, translated and published by the direction of Mr. Hastings.

Population. The population of this extensive part of Asia is said to amout to 60,000,000, of which the British possessions may now perhaps contain a quarter, especially as frequent recent conflicts have thinned the population in many other parts of Hindostan. When it is considered that China is about one quarter less than Hindostan, and yet is said to contain 330,000,000, we may judge of the boasted

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effects of Hindoo philosophy, more fit for the visionary cell of the recluse, than to promote universal spirit and industry.

General Revenues. The general revenues of Hindostan were computed, in the time of Aurungzeb, as already mentioned, by a precise calculation of those of the several provinces, at 32,000,000 sterling; equal perhaps, considering the comparative price of products, to 160,000,000 sterling in modern England.

Political Importance and Relations. The political importance and relations of Hindostan are now divided among many powers. So miserable was the intestine constitution that this wide and populous country, defended on all sides by ranges of mountains, has in all ages fallen a prey to every invader. The fantastic institutions, like those of the ancient Persians, prevent the Hindoos from forming a maritime power; and even the small fleets of Siam and Pegu, which follow the more liberal doctrines of Boodh, seem unrivalled in the history of Hindostan.

Manners and Customs. The manners and customs of the Hindoos are intimately blended with their religion, and are universally similar, with a few exceptions in mountainous and other peculiar districts. One of the most singular begins to expire, that of giving the living widow to the same flames with her husband's corpse. The ancients represent the Bramins as accustomed to terminate their own lives on funeral piles lighted by themselves. But by what refinement of cruelty this custom was extended to involuntary and helpless females has not appeared: perhaps the cause was to enforce the preservation of their husband's health, by making their life depend on his*. But this and other monstrous institutions of the Bramins are treated with lenity, and even respect by many authors, who seem to inherit the Greek astonishment at these fanatics:

"And wonder with a foolish face of praise."

The other manners and customs of the Hindoos have been illustrated by many travellers. As soon as a child is born it is carefully registered in its proper cast, and astrologers are consulted concerning its destiny: for the Hindoos, like the Turks, are strict predestinarians. A Bramin imposes the name. The infant thrives by what we would call neglect; and nowhere are seen more vigour and elegance of form. The boys are generally taught reading and writing by Bramins, but the girls are confined at home till their twelfth year†. Polygamy is practised; but one wife is acknowledged as supreme: the ceremony is accompanied with many strange idolatrous forms, minutely described by the author last quoted. It is well known that the Hindoos are extremely abstemious, and wholly abstain from animal food and intoxicating liquors; yet if we judge from the fanatic penances, suicides, and other superstitious phrenzies, nowhere on earth is the mind so much disordered. The houses and dresses are of the most simple kind; and nudity is no

* This custom was chiefly enforced on the wives of Bramins.

† See a voyage to the East Indies by Fra. Paolino da San Bartolomeo, 1800, 8vo: the author's lay name was Wesdin, an Austrian.

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reproach to a Bramin. The houses are built of earth or bricks, covered with mortar, and sometimes with excellent cement; with no windows or only small apertures. There is generally only a ground floor, inclosing a court, with a small gallery, supported by slight wooden pillars. The amusements consist of religious processions; but though dancing girls abound, yet theatrical exhibitions do not seem so common as in the countries further to the east.

LANGUAGES. The general ancient language of Hindostan is believed to have been the Sanscret, an original and refined speech, compared by Sir William Jones with the Greek and Latin. The more common dialects are chiefly the following*:

1. That of Kandi in the interior of Ceylon, which is said nearly to resemble the Sanscret.

2. The Tamulac, used in the Deccan, or southern part, in Madura, Mysore, and some parts of the Malabar coast. Wesdin, who was conversant in it, pronounces it harmonious and easily acquired.

3. The Malabar language, extending from cape Comari to the mountain Illi, which divides Malabar from Canara. One of its alphabets is called the *Maleyam Tamul*. Perhaps this may be the primitive Malay language; but *Mala* in general implies a mountain, as *Gaut* does a pass.

4. That of Canara, which extends as far as Goa.

" 5. The Marashda language. It is prevalent throughout the whole country of the *Marashdi*, who are very improperly called *Marattas*.

" 6. The Talenga, an harmonious, nervous, masculine, copious, and learned language, which like the Samscred, has fifty-two characters; and these are sufficient to write the latter. It is spoken on the coast of Orixa, in Golconda, on the river Kishna, and as far as the mountains of Balangat. All these languages have their own alphabets: so that in every province you must make yourself acquainted with a distinct kind of characters, if you wish to express your thoughts in the dialect common in each.

" 7. The common Bengal language: a wretched dialect, corrupted in the utmost degree. It has no V, and instead of it employs the B; so that instead of *Ved* you must write *Beda*. It is spoken at Calcutta; and in Bengal on the banks of the Ganges.

" 8. The Devanagaric, or Hindostan language; called by some Nagru, Nagari, and also Devanagari. It is spoken at Benares, or Venares, and consists of fifty-two characters, with which you can write the Samscred. Its mode of writing has been introduced into all the northern part of India. A specimen of it may be seen in the first volume of the Asiatic Researches.

" 9. The Guzaratic, which has been introduced not only into the kingdom of Guzarat, but also at Baroche, Surat, Tatta, and the neighbourhood of the Balangat mountains. Its characters are little different from those of the Devanagaric.

" 10. The Nepalic, which is spoken in the kingdom of Nepal, and has a great similarity to the *Devanagaric*."

* Wesdin, 317.

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So far Wesdin; who adds his opinion, that all these languages proceed from the Sanscret, which Sir William Jones imagines was transplanted from Persia. Hindostan is in truth an excellent field for the investigation of antiquaries, who may here confound hundreds of years with thousands; and may dispute forever without arriving at any decision.

LITERATURE. The literature of Hindostan doubtless contains several valuable and curious monuments; but the want of history and chronology renders their epochs extremely uncertain. A language may be antiquated in the course of a few centuries, as well as in the lapse of some thousands of years. But while the Hindoo literati compute by millions of ages, they forget that little division called a century. There seems no chronology of authors who successively quote or mention each other; and there is not even any great land mark, like the age of Confucius among the Chinese. Hence, little else that confusion and contradiction are to be found in the numerous accounts published of Hindoo literature.

The most important books are the Vedas; one of which has nine sections, and another one thousand. It is to be hoped that these forgeries are more ancient than the Puranas, which have been demonstrated by Mr. Bently not to exceed seven centuries in antiquity*. There are some epic poems which pretend to contain fragments of genuine history†. The most ancient, called Ramayana, was written by Valmici; and next in celebrity is the Mahabarat of Vyasa, who is said to have been the author of some Puranas, and of course could not have flourished above seven hundred years ago: and it is probable that the more ancient poem cannot aspire to a much higher date. It is a great singularity that the old Hindoo grants of land, many of which have been translated and published, are extremely long, and in a strange poetical or inflated style, some of the compound words consisting of not less than one hundred and fifty syllables! When we compare these singularities with the brevity and clearness of the Greek and Roman inscriptions, and the unbiassed dictates of plain good sense, we are led to conclude that the Hindoos are the puerile slaves of a capricious imagination. And though some translations of their best works have already appeared, they have not acquired the smallest degree of European reputation; and have very little interested a few curious inquirers, though eager to be pleased. To compare such tedious trifles, alike destitute of good sense, vigorous genius, or brilliant fancy, with the immortal productions of Greece or Rome, would only confirm the idea, that the climate itself impairs judgment, while it inflames imagination.

The Hindoos are ignorant of the Chinese art of printing, and the materials used in their manuscripts seem very perishable; nor have we any rules for determining the antiquity of these manuscripts. To an exact inquirer this would have been the first topic of investigation; but it has on the contrary been completely neglected. We have

* Asiatic Researches, vi.

† Ibid. i. 340. a poet called Somadeva begins with the history of Nanda, King of Patna. Ibid. iv. xviii.

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merely the bold assertions of Bramins, eagerly imbibed by European credulity, instead of successive arguments and proofs.

Ancient Civilizations. Dr. Robertson considers the ancient and high civilization of the Hindoos, as established by their division into casts; by their civil policy; by their laws; their useful and elegant arts; their sciences and religious institutions.* But the arguments of that able author seem liable to some objections. 1. The distinction into casts is doubtless ancient and peculiar; but seem to have proceeded from a crafty priesthood in order to fix their own superiority and preponderance. The error of the Doctor's argument consists in his confounding casts with trades, while they are in truth totally distinct, as neither a priest, a soldier, a farmer, nor a labourer is a tradesman. Separation of trades argues refinement; but from the Hindoo casts nothing can be concluded, except that agriculture existed at their institution. When our author adds, "what now is in India, always was there," he evinces rather a singular love of hypothesis. All we know from antiquity is, that the casts existed in the time of Strabo, Arrian, and Pliny, and perhaps were not known even in the time of Alexander. Suppose that they even existed three centuries before the christian era, we have only a proof that agriculture and merchandize were then known in Hindostan; and yet the first tribe that passed from the centre of Asia might, even in that case, have only begun to people the north of Hindostan a few centuries, or say a thousand years before the christian era. 2. The civil policy is considered as proving early civilization, not indeed because the Hindoo fables represent the whole country as subject to one monarch, but because Alexander found kingdoms of some magnitude. But these kingdoms were no larger in proportion, than those which Cæsar found in barbaric Gaul and Britain. The magnitude of the country is forgotten, inhabited by an indigenous people, and remarkably destitute of natural barriers. That some old institutions remain is no wonder, when the identity of oriental customs is considered. 3. The laws are sufficiently numerous and complex; but so are those of England at present, though they were in a very different predicament six centuries ago; but our ingenious author speaks familiarly of the Hindoo millions of years, and forgets our little centuries. The Hindoo code may be extremely ancient; and yet perhaps was written about the plain christian year 1200. 4. The useful and elegant arts likewise require the illustration of chronology, and as there are no inscriptions with clear authentic dates in the famous excavations in the isle of Elephanta, in that of Salsett, or at Elora, it is impossible to pronounce concerning their antiquity, especially as the mythology continues the same. These, and other monuments, may perhaps be of great antiquity, but it is as probable that they were the works of the famous Balharas, as of any imaginary Hindoo emperors, who only exist in the wild imaginations of the Bramins. The ruins of Persepolis evince that the edifice could not have been erected since the Mahometans conquered that country in the seventh century. But where the religion continued pagan, and a splendid native monarchy existed till the sixteenth century, to any sober inquirer it will appear more rational

* Disquisition, 237.

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to conclude that these monuments belong to the fifteenth century after Christ, rather than to the fifteenth century before. And this opinion will remain equally firm, if all the Bramins computed their duration by millions or billions of years. In like manner the detached temples in the south may present magnificient proofs of Hindoo architecture in the *seventeenth* century. That the Hindoos could both make and dye linen and cotton is no proof of great social progress. The ancients traded to India for spices, precious stones, and silk, but manufactured goods are scarcely mentioned. The uncertain antiquity of Hindoo literature has been already discussed. 5. As to the sciences, the want of chronology is equally felt; and it is probable that the Hindoos might derive some knowledge from the Greeks of Bactria. The absurd study of astrology, still in the highest repute among the Bramins, has of course occasioned a particular attention to be paid to astronomy; but the Chinese, and perhaps even the Siamese, rival the Hindoos in this science, in which it is easy to calculate tables backward to any epoch;* and the Bramins perhaps have sufficient patience to compute eclipses, &c. which must have happened, if this planet had existed ten millions of years.† 6. In the last place, our most learned and respectable author considers the religious institutions of the Hindoos as a proof of early and high civilization. Yet it is not a little singular that all his arguments concerning the regularity of the system, the magnificent temples, &c. might have been applied to the Roman catholic system in Scandinavia, in the year 1300; at which time it had not there existed above two centuries. The mythology of Hindostan is probably as ancient as its first population, and has been gradually expanded and refined like classical paganism. But the recent discovery, that the worship of Boodh preceded that of Brahma, could not have been foreseen; and it is probable that in many respects the ancient system differed most essentially from the modern.

* The Cali Yug was, like the Julian period, fixed by retrospective computation. It begins about 3000 years before the christian era. As. Res. iii. 224.

† The whole arguments of M. Bailly and others for the antiquity of the Hindoo astronomy seem at length to be completely overturned by a learned dissertation of Mr. Bentley, published in the Asiatic Researches 1799, (vi. 540, 8vo.) to which the curious reader is referred. The result is, that the system so eagerly applauded, and supposed by M. Bailly, Dr. Robertson, and others, to be of such remote antiquity, cannot be of a greater age than *seven hundred and thirty-one* years. In other words, it was composed about A. D. 1068. "Therefore any Hindu work in which the name of Varaha or his system is mentioned, must evidently be modern; and this circumstance alone totally destroys the pretended antiquity of many of the Purans, and other books, which through the artifices of the Brahminical tribe have been hitherto deemed the most ancient in existence." Thus the chief pillar of the antiquity of Hindoo science has been torn down by this modern Sampson, and many antiquaries have perished in the ruins. Perhaps the Vedas may be found to have been composed by the artful Bramins, in imitation of the Koran, or of the books ascribed to Confucius, for the ancients do not mention any sacred Hindoo code. Menu may have been an honest lawyer of the thirteenth century; and the whole Hindoo arts and sciences, except weaving, be found to be derived from their neighbours. We may then exclaim as the Egyptian priests did to Plato. "Ye Hindoos, and even ye Bramins, ye always were, and remain children."

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So much for the ancient civilization of the Hindoos, who are nevertheless at present in general highly civilized, and of the most gentle and amiable manners. But perhaps in no art nor science are they equal to the Chinese or Japanese; and in most are confessedly greatly inferior.

Universities. The chief university in the north is that of Benares, a most celebrated and ancient school, now included in the English possessions. In the Deccan the academy of Triciur, on the Malabar coast, is also in great repute, and according to our author: "At *Cangiburam*, in *Carnate*, there is still a celebrated Brahman school, which, according to the testimony of Ptolemy, existed in the first century of the christian era: and its members are certainly equal in celebrity to the Brahmans of *Vanares*, or *Benares**". It is to be hoped that our recent acquisitions in the south will lead to the discovery of new literary treasures in that quarter, where it is to be expected that native knowledge is more pure and perfect than in the north, where it was so long trampled under foot by the Mahometan conquerors.

Inland Navigation. With respect to inland navigation Hindostan forms a striking contrast with China. In the fourteenth century, Feroz III, of the Patan dynasty, ordered some short canals to be dug in the neighbourhood of Delhi; and had an intention as is said of uniting the Ganges with the Indus, or Setlege. This intended canal, which would not have been above one quarter the length of the great canal of China, has been praised as a grand and wonderful design a sufficient proof of the great inferiority of the Hindoos, and their Mahometan victors, in the solid and useful arts.

Manufactures. The manufactures of Hindostan have been celebrated from early antiquity, particularly the muslins and other fabrics from cotton. Piece goods, as we call them, are mentioned by the author of the Periplus, and other ancient writers, who praise the manufacture and the beautiful colours with which it was dyed. The Hindoos, in the time of Strabo, were also noted for elegant works in metals and ivory. These circumstances, however, afford no proof of such early civilization as is inferred; for the Romans, with the same materials, could at that period have equalled if not exceeded the Hindoos; and yet the Romans were barbarions till three or four centuries before the christian era. The fine linen of Egypt seems to have been of far more remote antiquity. Nor is Hindostan celebrated at this day for any manufactures, except those of muslins and calicoes, the other exports consisting of diamonds, raw silks, with a few wrought silks, spices, drugs, &c. The shawls of Cashmir are also deservedly esteemed; being there woven from a material chiefly supplied by Tibet. Sonnerat† has illustrated with some care the arts and trades of the Hindoos. Painting is in its infancy; and they are strangers to shade and perspective. In the painted muslins and calicoes the brightness of the tints is owing to nature rather than art. Sculpture is as little advanced as painting, the design and execution being alike bad; yet the temples are sometimes majestic and solemn. In most trades very few tools are

* Wesdin, 283. † Tome i. page 99.

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employed. The simple loom is reared in the morning under a tree, and carried home in the evening.

NATIVE PRODUCTS. But it is the abundance of native products, which has in all ages rendered Hindostan the centre of great trade. Diamonds, and some other precious stones, are products almost peculiar; as well as many spices, aromatics, and drugs. In modern times the tea and porcelain of China, and other oriental articles, have been vaguely included among those of the East Indies. But rice, sugar, and many articles of luxury are products of Hindostan.

CLIMATE AND SEASONS. The climate and seasons are considerably diversified by difference of latitude, and local situation. Yet in general, though the northern Alps of Tibet be covered with perpetual snow, there is some similarity of climate through the wide regions of Hindostan. In Bengal the hot, or dry season begins with March, and continues to the end of May, the thermometer sometimes rising to 110 degrees: this intense heat is sometimes interrupted by violent thunder storms from the northwest, the seat of the grand Alps of Asia. The fogs are not only common, but horribly thick and unhealthy. Various meteorological journals, kept in Bengal, are published in the Asiatic Researches, whence a complete idea may be formed of the seasons. The rainy season continues from June to September: the three last months of the year are generally pleasant; but excessive fogs often prevail in January and February.

The periodical rains are also felt in Sindetic Hindostan, except in Cashmir, where they seem to be excluded by the surrounding mountains. In the rest of Hindostan they almost deluge the country, descending like cataracts from the clouds, and the Ganges and other rivers spread to a wide extent, the inundation ceasing in September. By the latter end of June the Ganges has risen fifteen feet and a half, out of thirty-two, which is the total of its overflow.* In the mountains the rainy season begins early in April; but rarely in the plains till the latter end of June. "By the latter end of July all the lower parts of Bengal, contiguous to the Ganges and Burrampooter, are overflowed, and form an inundation of more than a hundred miles in width; nothing appearing but villages and trees, excepting very rarely the top of an elevated spot (the artificial mound of some deserted village) appearing like an island."

In the southern division the chains of the Gauts, or mountains of Malabar and Coromandel, supporting the high table land in the centre, intercept the great mass of clouds; and the alternate S. W. and N. E. winds called the Monsoons, occasion a rainy season on one side of the mountains only, that is on the windward side.† Yet it appears that

* Rennell, 349.

† Rennell, 293. Through the whole of this account of Hindostan there has been occasion to regret the want of a geography of that country, regularly digested from the numerous detached accounts. Mr. Pennant's work yields infinitely to the geography of his Arctic Zoology; and independently of its want of plan and sub divisions, is defective even in his own province, that of natural history, as connected with climate and soil.

In his last memoir, page 15, Rennell informs us that in southern Hindostan the S. W. monsoon prevails, May, June, and July, on the W. coast, and the

during the first part of the rainy monsoon, in May and June, on the coast of Malabar, a considerable quantity of rain falls in the upper region or table land of Mysore, &c. Major Rennell observes, that at Nagpour, in the very centre of Hindostan, the seasons differ but little from their usual course in Bengal, and on the western side; that is the S. W. monsoon occasions a rainy season, though not so violent. In the parallel of Surat, from the mountains declining in height, and other causes, there is no longer that singularity which occasions rain on one side of the Deccan while the opposite season prevails on the other. The monsoon is from the N. E. from October to April; and from May to September in the opposite direction. The rainy season on the coast of Coromandel is with the N. E. monsoon; and on that of Malabar with the S. W. in general, March, April, May, and June are the dry months.

Hence while in Tibet the winter nearly corresponds with that of Switzerland, and the rest of Europe, in the whole extent of Hindostan, except in Cashmir, there can hardly be said to be a vestige of winter, except the thick fogs of our November: and excessive rains, or excessive heats, form the chief varieties of the year.

General Face of the Country. The aspect of this wide country is extremely diversified; but in general there are no mountains of any considerable height, the highest Gauts in the south not being estimated at above three thousand feet. The frontier mountains of Tibet are of small elevation, compared with those of the interior of that country; and the wonderful extent of Hindostan consists chiefly of extensive plains, fertilized by numerous rivers and streams, and interspersed with a few ranges of hills. The periodical rains and intense heats produce a luxuriance of vegetation, almost unknown to any other country on the globe: and the variety and richness of the vegetable creation delight the eye of every spectator.

Soil. The soil is sometimes so excellent as to consist of black vegetable mould to the depth of six feet. Rice is the chief grain; and on the dry sandy lands of the coast of Coromandel great industry is displayed in watering it.* Maize and the sugar cane are also favourite products. Extreme attention to manure seems far from being so general as in China or Japan; nor perhaps is it necessary. The cultivation of cotton may also be conceived to be widely diffused; and this plant particularly thrives on the dry coast of Coromandel. There must of course be a considerable diversity in the modes of agriculture, as well as in the products, through so wide a country; but in general the implements are of the most simple description, though the fertility of the land amply compensate for any defect in practice or industry.†

N. E. monsoon on the opposite during a part of October, and all November and December: but the rain of the former is the heaviest, being 72 inches a year. In Coromandel summer begins in June; in Malabar in October, when it is winter in the other. Wesdin, p. 4.

* Sonnerat, i. 106

† The harvest is divided into two periods, the Rhereef and Kubbee; the former being in September, and October; and the latter in March and April. As. Res. vi. 45.

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RIVERS. In describing the large and numerous rivers of Hindostan, the Ganges and Indus shall first be considered, with their chief tributary streams; and a short account of the principal rivers in the central part shall be followed by those in the southern division. This arrangement naturally arises from the four grand divisions formerly mentioned:

GANGES. The Ganges must still be considered as the sacred sovereign of the Hindoo rivers, an attribute not infringed by the recent discovery of the Burrampooter. It receives such a number of important tributary streams, that its magnitude exceeds what might have been expected from the comparative length of its course; which may however be estimated at about fourteen hundred British miles, while the Hoan-ho of China has been computed at two thousand, and the Kian-ku at two thousand two hundred. The source of the Ganges remains a curious object of investigation; nor can much reliance be placed on its delineation in the map of Tibet by the Chinese Lamas, published by Du Halde, and followed by all succeeding geographers. For, independently of the doubts which accompany the relation of these Lamas, the reader has only to compare Mr. Turner's map of his route in the south of Tibet, with the same country in Du Halde's map, to see that the latter is erroneous in almost every respect, as the courses of the rivers, names of places, &c. &c. Such being the case, there is little room to expect more accuracy in the other parts. Anquetil du Perron considers the source of the Ganges as still unexplored: and says that the Chinese missionaries only discovered that of the Gogra, or Gagra, a large river running parallel with the Ganges on the east, and joining that noble stream above Chupra. The labours of the Jesuit Tieffenthaler have little illustrated this subject, though they seem to evince that the Gagra springs from a lake called Lanken, to the west of the lake of Mansaror, whence one source of the Ganges is supposed to flow.* Tieffenthaler has laid down the latitude of the noted Gangontra, or Cow's mouth in lat. thirty-three degrees, being a celebrated cataract where the Ganges is said to pass through a vast cavern in a mountain falling into a large bason which it has worn in the rock. At Hurdwar, about two hundred and eighty miles to the south of the Cow's mouth, (if this last be not a dream of the fabling Hindoos), the Ganges enters the wide plains of Hindostan; and pursues a south-east direction by the ancient city of Canoge, once the capital of a kingdom, by Allahabad, Benares, Patna, &c. till dividing into many grand and capacious mouths it form an extensive Delta at its egress into the gulf of Bengal. The extreme mouths of the Ganges are intersected with isles, called the Sunderbunds, overgrown with tall bamboos and other luxuriant vegetation, the profound haunts of the royal tiger and other beasts of prey. On the westernmost outlet of the Ganges, called the Hoogley, or Ugli, stands Calcutta, the capital of British Hindostan. This, and the most eastern which receives the Burrampooter, are the widest and most important branches.

* See Tome ii. of Bernoulli's Collection, page 351, &c. Rennell, 313: the Jesuit's mountains of Kelasch, i. 150, seem the Kentais of the Lamas.

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Burrampoot. The noblest tributary stream of the Ganges is the Burrampooter, or as styled by the people of Asam the Burrampoot, being the Sanpoo of the Tibetans. The course of this river, and its junction with the Ganges, were first ascertained by Mr. Rennell, of the Engineers, and Surveyor General in Bengal, in 1765. This noble river runs for four hundred miles through the British territory; and for the last sixty miles before its junction with the Ganges is from four to five miles wide. On their union below Luckipour, they form a body of running fresh water, resembling a gulf of the sea, interspersed with islands, some of which rival in size and fertility our Isle of Wight. In the mouths of the Ganges, and the Megna, or Burrampoot, the Bore or sudden influx of the tide will rise instantaneously to the height of from five to twelve feet.* Between Bengal and Tibet the Burrampoot passes through the country of Asam, a region hitherto little known, and which may be here briefly described.

Asam. It is divided into two parts by the river; the northern being called Uttarcul, and the southern Dacshincul. The mountains of Duleh, and Landa divide Asam from Tibet.† Asam is intersected by several streams which run into the Burrampoot; among which is the Donec in the south, the environs of which present fields, groves, and gardens. Among the products are many kinds of valuable fruits, with pepper, cocoa nuts, sugar, and ginger. The silk is said to equal that of China; nor are musk deer unknown. The northern province, Uttarcul, surpasses the southern in tillage and population; gold and silver are said to be found in the sand of the rivers, and to furnish employment to many of the natives. The Hindoo tenets are not known by the generality, though there be some Bramins, and the vulgar dialect somewhat resemble that of Bengal. The Raja, or king resides at Ghargon, the capital, which, by this account, stands on the south of the great river: it is fenced with bamboos, and has four gates constructed of stone and earth. The palace, public saloon, &c. seem rudely to resemble those of the Birmans. The natives are a stout and brave race; and repeatedly foiled the invasions of the Moguls.

The course of the Burrampoot is supposed to be nearly equal in length to that of the Ganges. The sources of these great rivers are stated to be very near, yet they separate to the distance of more than a thousand miles, and afterwards join in their termination.

Gagra, &c. The most important tributary streams which swell the Ganges are the Gagra, also called Sarjoo, (a great part of whose course, like those of the Cosa and Teesta, belong to Tibet); the Jumna or Yumena, which receives many considerable rivers from the south, particularly the Chumbul and the Betwa; and lastly the Soan.

The Gagra, after pursuing a long course from the mountains of Tibet, pervades the province of Oude. It is singular that this river is wholly unknown by any name whatever in the map of Tibet by the Lamas; another cogent proof that it deserves very little credit. The comparative course of the Gagra is about seven hundred miles.

Jumna. The Jumna rises from the mountains of Sirinagur, pursuing nearly a parallel cource to the Ganges on the west, as the

* Rennell, 358. † As. Res. ii. 171.

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Gagra does on the east; but its comparative course has not exceeded five hundred miles when it flows into the Ganges at Allahabad. By receiving numerous and extensive streams from the south, the Jumna contributes greatly to increase the breadth of Gangetic Hindostan; and the Chumbul, which joins the Jumna, is itself swelled with many tributary streams.

Soan. The Soan is said to spring from the same lake, or other source, with the Nerbudda, (which flows in an opposite direction to the gulf of Cambay), and joins the Ganges not far below its union with the Gagra.* Several streams of smaller account fall into the Hoogley, or western branch of the Ganges.

Indus. The Indus, and its confluent streams, form the next object. This celebrated river is by the natives called Sinde, or Sindeh, and in the original Sanscret, Seendho. It is also called Nilab, or the Blue River. The source, like that of the Ganges, remains unknown; for the ideas expressed even by Major Rennell on the subject are vague and unsatisfactory. His Plain of Pamer is derived from a misinterpreted passage of Marco Polo; and the whole of this region is as yet only ingenious conjecture. The mountains of Mus Tag, from which Rennell derives the Indus, as well as the Plain of Pamer in its new acceptation, are borrowed from the Map of Strahlenberg, which is indeed excellent for the time, 1737, and laid the first foundation of an exact knowledge of central Asia. But the proper mountains of Mus Tag, which are also laid down by Strahlenberg, run from W. to E, being the chain to the south of Little Bucharia; and from the map of Islenieff, 1777, it appears that the chain of mountains which gives source to the Amu or Gihon on one side, and on the other to the rivers of Little Bucharia, is that of the Belur Tag, or Cloudy Mountains; from the eastern side of which chain the Indus seems to arise. Its comparative course may be about a thousand British miles, when it forms a delta in the province of Sindi, entering by many mouths into the Indian sea.

Panjab. The tributary rivers of the Sindé chiefly join it in the northern half of its course, where they form the Panjab, or country of Five Rivers. From the west run into the Indus the Kameh, with its tributary streams, and the Comul: from the east the Behut or Hydaspes; the Chunab or Ascesinas; the Rauvee or Hydraotes; and the Setlege or Hesudrus, with a tributary stream on the west, the

* See in the Asiatic Register, vol. ii. for 1800, a curious account of the sources of the Soan and Nerbudda. These rivers rise in the table land of Omercuntuc, at a noted place of pilgrimage. The Nerbudda springs from a small well; and after a short course falls abruptly from a most stupendous height; and being joined by many streams, soon becomes a considerable river. The Soan rises from the east side of Omercuntuc, and proceeds N. to Burdy, whence it proceeds E. to the Ganges. The Hindoo temple here is magnificent; and is in the territory, or under the protection of the Goands. Rochette's map gives a more just idea of the sources of these rivers than Rennell's, in which they are confounded. The journey above quoted, by Mr. Blunt an engineer, from Chunargur by Ruttunpour to Rajamundry in the Sircar of Ellore (which must not be confounded with the celebrated Ellora), is very interesting, as it discloses some parts of Hindostan little visted. It is to be regretted that the ingenious author has not accompanied it with a map.

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Hyphasis: the Panjab country being on the east of the Sindé. The whole of this part of Hindostan is little known to the moderns; and it is uncertain whether the Caggar, a considerable and distant river to the East, join the Sindé, or fall into the gulf of Cutch.*

Having thus briefly described the most important rivers in the two first grand divisions of Hindostan, those of the Central part must next be considered, being chiefly the Pudda, Nerbudda, and Taptee, on the west; and on the east the Subanreeka, or Subunreka, which joins the sea about thirty miles to the west of that mouth of the Ganges called the Hoogley, or more properly, from a city on its shore, the Ugli. The Subunreka being here considered as the N. E. boundary of Central Hindostan, is followed by the Bramnee, the Mahanada; and after passing the little streams of the Sircars by the Godaveri, the last and most important stream of Central Hindostan.

Godaveri. The Godaveri rises at Trimbuck Nassor, in the western Gauts, more properly called the Sukhien mountains, from several sources, about seventy miles to the N. E. of Bombay.† This great river was little known in Europe till recent times; and is also called the Ganga, a Hindoo term for a river in general, through applied by pre-eminence to the Ganges.‡

Bain Gonga. About ninety miles above its egress into the sea, the Godaveri receives a large river, the Bain Gonga, which pervades immense teak forests in a singular wild country, inhabited by savages in the centre of Hindostan, and as yet little known or explored.‖ The Bain Gonga was first discovered to Europeans by the late Colonel Camac, its course being about four hundred miles, while that of the Godaveri may be seven hundred. This last great river, like another Nile or Ganges, fertilizes the country; and from the benefits which it confers is esteemed sacred. Besides the Bain or Baun Gonga, it receives many tributary streams, as the Burda and others from the north; and from the south a circuitous large river, the Manzora, which passes by Beder.

Nerbudda. The next in consequence, in the central division of Hindostan, is the Nerbudda, which may be called a solitary stream, as it receives so few contributions. Its course is almost due west, and about equal to that of the Godaveri. The Taptee, which passes by Surat, is also a considerable river, about four hundred miles in length. To the south of this river the superior elevation of the Sukhien mountains, or western Gauts, diffuses all the rivers towards the east.

In the arrangement here followed the Deccan, or most southern part of Hindostan, is considered as bounded and enriched by the Kistna and its tributary streams.

Kistna. The Kistna, a sacred river, rises at Balisur in the chain of Sukhien, not far to the south of Poona, and forms a delta near

* Major Rennell's excellent map may here be compared with that of de la Rochette, published by Faden 1788, which is well executed and compiled with great care.

† As. Res. v. 1. 5. ‡ Rennell, 244.

‖ D'Anville's map, 1751, supposes that the Gonga and Godaveri fall into the Bay of Bengal close to the western branch of the Ganges! The ideas of Ptolemy are more just.

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Masulipatam, after a comparative course of about five hundred British miles. This river rivals any Indian stream in the fertility diffused by its inundations; and the richest diamond mines in the world are in the neighbouring hills to the north. The chief tributary streams in that quarter are the Beema, passing near the diamond mines of Visiapour; and the Muzi or Moussi by those of Golconda. But the most considerable river joins the Kistna from the south, being the Toombuddra of Rennell's last map, the Tunge-badra of D'Anville; on the banks of which have been recently disclosed many populous provinces, and flourishing towns.

To the south of the Kistna appear the Pennar, the Paliar, and above all the Caveri, another large and sacred stream, which passes by Seringapatam the capital of Mysore, and forms a wider delta than any other southern river, when it enters the sea after a course of about three hundred miles.

Caveri. The Caveri in general pervades a country in which public monuments, unequivocal marks of civilization and opulence, are more common than in the northern parts of Hindostan.* As the course of the Caveri is comparatively short, its tributary streams are unimportant.

Lakes. Such are the principal rivers in this extensive portion of Asia. The lakes seem to be few. Rennell mentions that of Colair, during the inundations about forty or fifty miles in extent, and a considerable piece of water in all seasons, lying about midway between the Godaveri and Kistna, in the new soil gradually formed by the inundations of these rivers, about twelve British miles to the north of Masulipatam. That of Chilka bounds to the British Sircars on the north, resembling the German Haffs described in the first volume of this work, being a kind of salt creek communicating with the sea. The lake of Pulicat is of a similar kind. One or two lakes may also be traced in the vicinity of the Ganges and the Indus. The country of Cashmir is supposed to have been originally a large lake, as reported in the native traditions, and a considerable expanse of water still remains in the northern part of this delightful country, called the lake of Ouller or Tal, being about fifty-three British miles in circuit.

Mountains. The mountains chiefly celebrated by the Hindoos may be said to be only visible from their country, being the northern chain of the Tibetan Alps, covered with perpetual snow. Hence they are called Himmala, from a word denoting snow; and are celebrated in the conflicts of the gods and other mythologic fables.

Ancient Names. This name of Himmala may perhaps be the source of the Imaus of the ancients. Ptolemy not only describes an Imaus as running north and south, or the Belur Tag of the Russians and Tatars, with its ridges to the west, now called Argun, Ak Tau, &c. but another Imaus passing E. and W. to the N. of Hindostan. Justly extending the Caucasian chain to the south of the Caspian, he has given it several local appellations, as Coronus, Sariphus, &c. His Paropamisus, on the north and west of the province so called, is to the south of Balk or Bactriana, terminating in the west in the sandy desert

* Rennell, 275.

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called that of Margiana. The highest summits of his Imaus he mentions as those that give source to the Indus, and which ought indeed to form one chain with his Imaus from the north, which he has here transferred from longitude 127° to 142°, an error of fifteen degrees, even supposing his general longitude just. His Emodus and Ottorocoras, ridges to the south of his Scythia beyond the Imaus, are the Mus Tag of Russian geography to the south of Little Bucharia, and must not be confounded with the Kantel, the northern boundary of Cashmir and Tibet. But the last mountainous region, being still less explored in ancient than in modern times, has totally escaped the knowledge and geography of Ptolemy; who having thus lost a space of about ten degrees in breadth, or 700 miles, it becomes doubtful whether his Imaus proceeded on the north of Tibet or of Hindostan. On the east side of the Ganges he delineates the ridges which pass from north to south, in the Birman empire, the boundary of ancient discovery: but as in Europe he was a stranger to the central parts of Germany, and in Hindostan to those of the Deccan, so by his obliteration of Tibet, great confusion arises in his geography of northern Hindostan; nor has D'Anville, who places the Brahmani in Tibet, been sufficiently aware of the difficulty. This discussion of a curious and neglected part of Hindoo geography must be dismissed with the remark, that the Emodus of Ptolemy, being by him ascribed to Serica, must be considered as the southern ridge of Little Bucharia; while his Imaus, which he supposes a continuation of the chain above mentioned, must be removed no less than 700 miles to the south, where it forms the southern ridge of the Tibetan Alps. On this plan his map of eastern Asia might be cut asunder at his thirty-fifth degree of north latitude, as far west as the sources of the Indus; the upper part being Little Bucharia, whose southern frontier may extend to thirty-five degrees, while the under part must be transferred to the south, where our twenty-six degrees corresponds with Ptolemy's thirty-five degrees.

As the northern Imaus of Ptolemy is clearly the Belur Tag, so his southern Imaus may be safely regarded as the Himmala of the Hindoos; which may be admitted to have been known to the ancients, who were strangers to the rich Gangetic regions of Hindostan. Nor was it absurd, to consider the Himmala as a south-east prolongation of the northern Imaus. The ridge to the east of Bengal is the Bepyrus or Sepyrus of Ptolemy: his Meandrus being the ridge which divides Aracan from Ava: his Damascus that near the river of Martaban: and his Semanthinus, seemingly connected with Thinæ, is the chain to the east of Tanaserim, this last ridge being the utmost limit of ancient knowledge in the south-east, as Little Bucharia was in the north-east.

Modern Names. To return to a more special consideration of the present topic, it must be observed that there is no small confusion, even in the most recent delineations, of the Indian ranges of mountains, or rather hills, and their exact denominations. The eastern ridge, called by Ptolemy Sepyrus, might in modern times be called Tipera. Those on the south of Asam might be styled the Garro mountains, being inhabited by a people so called. The ridges to the south of Nipal and Bootan are far inferior in height to the Himmala,

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or snowy ridge; nor can we much depend on the Tibetan names given by Du Halde. An equal defect attends the mountains from Sirinagur to Cashmir, though there be no objection to Rennell's name of Himmala. The ridge of Kuttore is properly on the north of that province, running east and west: and is followed by the Hindoo Koh of oriental geographers.

The mountains to the west of the Indus, or on the Persian frontier, seem to be the Becius and Parvetius of Ptolemy; but the modern names are little known; nor that of the ridge running parallel with the Indus on the east, called by Ptolemy Apocopus. The same author mentions mount Vindius, whence he derives the source of the Soan; now, it is believed, called Vindiah, and often mentioned in the Hindoo tales, though they seem to describe these hills as far to the west. Ptolemy's mountain of Sardonyx is not far to the east of Baroach, if that place be the Barigaza of antiquity. His Bettigus, near the royal seat of Arcat, seems a part of the eastern Gauts, as were his Adisathrus, Orudius, and Uxentus, which close the list of mountains known to Ptolemy in this extensive region.

In Major Rennell's excellent map of Hindostan the ridges are rather inserted in the minute and antiquated manner of D'Anville, than treated with a bold and scientific discrimination. The following list contains most of the names there to be found.

The Chaliscuteli hills, between the western desert and the Setlege.

The Alideck mountains, above Gujurat.

The mountains of Gomaun, or Kemaoon, called also those of Sewalic. This extensive ridge seems to form the exterior barrier of the Tibetan Alps in Sirinagur, &c.

The mountains of Himmaleh, north of Tassisudon. The other Tibetan mountains seem to be from Du Halde.

In Bengal are several ridges of hills without names, which is the case even with the chain to the north-west of the Sircars.

The Lucknow, hills at the source of the Mahanada.

Those of Gondwanah, running parallel with the Nerbudda for a space, and then turning south to Narnalla.

The ridges near the Chumbul are also without names.

The Grenier mountains in Guzerat.

The Shatpoorta hills, between the Nerbudda and the Taptee.

On the other side of the Nerbudda there are also remarkable parallel ridges, giving source to many rivers, but nameless.

Even the Gauts are laid down with little care; and the important diamond mountains of Golconda and Visiapour are not mentioned.

A ridge called the Bundeh mountains runs parallel to the Godaveri on the south, but at a considerable distance from that river*.

Hence it will be perceived that the Hindoo orology is singularly imperfect: but what is to be expected from a people who confound

* The small maps in the Memoir, present the snowy mountains of Bustch in Cabul, those of Suhmandrog, and Wulli in Canhahar, the Punchals in the south of Cashmir. The As. Res. i. 277, quote Rennell for the chain of Caramsha, fourteen miles north from Guya; and p. 283, the Vindya chain is said to begin at Chunar in Bahar. These references are from his atlas of Bengal.

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terms so far as to call a mountain a Gaut or a Pass? The Gauts peculiarly so called, are ranges which run along the western and eastern coasts of the Deccan. The former is by the natives called the mountains of Sukhien, a name which should supplant the absurd appellation of the Gauts*. In the language of the country *Mali* or *Muli* implies a mountain, and *Purbet* a hill. Whether the eastern Gauts be also called Sukhein we are not informed; but it is probable that another native name may be discovered for this distinct range of mountains. From an interesting journey to Sirinagur, published in the sixth volume of the Asiatic Researches, it appears that the same name of Ghat or Gaut is extended to the high ranges of mountains in the north: and D'Anville, wholly at a loss for distinct appellations of the numerous ranges in Hindoston, has in his general map of Asia introduced the mountains of Balagat near Visiapour, and has repeated them in his large map of Hindostan; though this name, Balagat, imply nothing but the high Gauts or superior Passes.

The Gauts peculiarly so called rise abruptly on each side, but particularly the west, forming as it were enormous walls, supporting a high terrace or table land in the middle. This elevated track, passing through a great part of the Maratta territories to the north of Mysore, is termed in general the Balla-Gaut, through its whole extent, while low passes are called Payen-Gautt. Opposite to Paniany, on the western coast, there is a break or interruption of the mountains, about sixteen miles in breadth, chiefly occupied by a forest; exclusive of this gap, the mountains of Sukien extend from cape Comorin to Surat, at the distance of from forty to seventy miles from the shore‡. Their effect on the seasons has been already mentioned, and it ceases at Surat, where the south-west wind carries uninterrupted moisture over Hindostan. The high terrace in the middle of the Deccan receives little rain; and the coast of Coromandel, which receives its rain from the north-east monsoon, is also of a dry soil as already described.

Desert. The sandy desert on the east of the Indus must not be omitted, extending in length between four and five hundred British miles, and in breadth from sixty to a hundred and fifty. Of this great desert the accounts are imperfect: but it is styled that of Agimere, and seems to have been known to Herodotus. Such wide expanses of barren sand, form features peculiar to Asia and Africa.

Forests. Of this extensive portion of Asia a great part remaining in primitive wildness, there are large forests in various quarters, particularly near the mouth of the Ganges, and in the wide unexplored regions on the west of the Sircars. These forests surpass in exuberance of vegetation any idea which Europeans can imagine; creeping plants of prodigious size and length, extended from tree to tree, forming an impenetrable gloom, and a barrier, as it were, sacred to the first mysteries of nature.

* As. Res. v. 1. 5. † Rennell, cxxvii.

‡ Rennell, 276, and his map of the Deccan 1800, in which the southern mountains are well expressed. Among the animals are numerous elephants; and if we believe Wesdin, 214, wild oxen ten feet high, with fine ash grey hair. The Arni of the north are black cattle, said to be fourteen feet high! Ibid. note.

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Botany. The general observations which were made on India beyond the Ganges, apply with still greater propriety to the botany of Hindostan. A more fertile soil, and a climate better adapted to the most profuse luxuriance of vegetation, than the well watered tracts in this vast peninsula, cannot possibly be found in any part of the known world. The liberality with which nature has scattered over this favoured country the choisest of those plants that contribute to the sustenance, the convenience, and elegance of human life, is boundless, and almost without competition: double harvests, two crops of fruit from many of the trees, and from most of the rest a copious and regular supply during the greater part of the year, are the great bases that support its swarming population, while its timber of every quality, its plants of medicinal virtue, its numerous and exquisite dying drugs, and its cottons and other vegetable articles of clothing, offer to its inhabitants the materials of enjoyment and civilization.

The most distinguishing feature in tropical landscapes is the multitude of lofty trees of the palm kind; all these rise with a simple trunk to a considerable height, terminated by a tuft of large leaves, and wholly destitute of branches except while they are in fruit: of these many species are natives of India. The cocoa-nut tree, perhaps the most widely diffused of any, is found in abundance on the coasts of Malabar and Coromandel: its fruit supplies an agreeable nutriment, and the fibrous covering of the nut is manufactured into the most elastic cables that are known. The areca palm is another of this family, of rare occurrence in a truly wild state, but cultivated over all India for its nuts, which, mixed with the leaves of the betal pepper, and a little quick-lime, are in as general request for chewing as tobacco is used in Europe. The smaller fan-palm (borassus flabelliformis) is distinguished for its broad fan-shaped leaves, which are used for writing on, and for thatching: its wood is in high esteem for rafters; and of its juice the best palm toddy, the common distilled spirit of the country is made. This, although a large tree, is far inferior to the great gigantic fan-palm (corypha umbraculifera) which abounds on the lower mountains of the Carnatic; each leaf of this vast tree is capable of covering ten or a dozen men, and two or three of them are sufficient to roof a cottage. The most beautiful of all, the sago palm, is also found here, though not so plentifully as in some of the Indian islands. Besides these may be mentioned the elate sylvestris, whose sweet farinaceous fruit is the favourite repast of the elephant; the caryota urens, a handsome lofty tree; and the plantain, distinguished by its tuft of broad simple light green leaves, and its wholesome farinaceous fruit.

Of the other fruit-bearing trees the number is so great, and they are for the most part so little known, even by name, to Europeans, that only a few of the principal need be here mentioned: these are the papaw fig; two species of the genus known to botanists by the name eugenia, and remarkable for the sweetness and rose flavour of their fruit; and the spondias dulcis, whose sweetness, pleasantly tempered with acid, renders it peculiarly agreeable in this hot climate. The pillaw is a tree of equal singularity and use: from its trunk and larger branches are produced large fibrous bags, sometimes of the weight of twenty-five pounds, which are filled with nuts like the chestnut, and

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resembling the almond in flavour. The dillenia indica is remarkable for its beauty, and valuable for its large pomaceous fruit of a pure acid, and equal to the white lily in fragrance. The averrhoa carambola produces three crops of fruit in the year, and another of the same genus, the A. bilimbi, is in a manner covered with large juicy berries of the size of a hen's egg, and resembling the grape. The mango however, is reckoned the most exquisite of the Indian fruits, and is found in considerable abundance, both wild and cultivated, through the whole peninsula: nor ought the carissa caranda to be omitted, or the elephant apple, (feronia elephantum,) almost equally a favourite with the animal whose name it bears, and with the native Hindoos.

Of the trees whose produce is used in medicine or the arts, the most worthy of notice are the cassia fistula; the tamarind; the gambogia, from whose bark exudes the gum of the same name; the strychnos nuxvomica; the laurus cassia, whose bark is a common substitute for cinnamon; cæsalpina sappan, a red wood used in dying; sirium myrtifolium (sandal wood); strychnos potatorum, the fruit of which called the *clearing nut*, is in general use for clearing muddy water; semecarpus anacardium, or *marking nut*, used for giving a durable black stain to cotton; and gossypium arboreum, the tree cotton. The chief timber trees are the teak, used specially for ship-building; a large tree called by botanists gyrocarpus, whose strong light wood is in great request for rafts, or catamarans; the ebony; the ferreola, the hardest of all the Indian woods; the nauclea cordifolia, of a close compact grain like box-wood; and the dalbergia, a dark grey wood with light coloured veins, very heavy, and capable of a most exquisite polish; it is much used for furniture.

A few other trees require notice from their size or beauty, such as the banyan tree and Indian fig; the hibiscus ficulneus is remarkable by its magnitude, and the profusion of its elegant blossoms, and is of peculiar value in a tropical climate, as hardly any insects are found under its shade. The bombax ceiba rises with a thorny trunk eighteen feet in circumference to the height of fifty feet without a branch; it then throws out numerous boughs, which are adorned in the rainy season with purple blossoms as large as the open hand, and these are succeeded by capsules filled with cotton. The shrubs and herbaceous plants are innumerable, and multitudes would be well worth recording for their beauty or use, if the nature of this work allowed an opportunity; we cannot omit however the indigo and the oldenlandia, (Indian madder,) whence the beautiful colours of the Indian chintzes are procured; nor the datura metel, a shrub adorned all the year with large trumpet-shaped blossoms of the purest white. The nyctanthes hirsuta, and the jasminum grandiflorum, boast the most fragrant blossoms of the whole east, the former perfuming the night, and the latter scenting the day. The gloriosa superba, cecropegia candelabrum, and Indian vine, form by their union, bowers worthy of Paradise; and the butea superba, a small tree, by the striking contrast of its green leaves, its black flowerstalks, and its large scarlet papilionaceous blossoms, attracts with its ostentatious charms, the notice and admiration of the most incurious.

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Zoology. For an ample accout of the zoology of Hindostan, the curious reader may consult Mr. Pennant's View of this country, this being the peculiar province of that great naturalist. The numerous cavalry which form the armies of the Hindoo princes, imply great numbers of horses; and the breeds most celebrated are those of Lahore and Turkistan, but the grandees are supplied from Persia and Arabia. The inferior breeds, though ugly, are active; and in some regions there are ponies not exceeding thirty inches in height*. The horses of Tibet, generally pyed, are often used in Gangetic Hindostan. The animal called the wild mule, and the wild ass, sometimes pass in herds to the northern mountains, from the centre of Asia, and the desert of Cobi.

The cattle of Hindostan are numerous, and often of a large size, with a haunch on the shoulders. The sheep are covered with hair instead of wool, except in the most northern parts.

Antelopes abound of various beautiful kinds, particularly that called the Nilgau, which is of a considerable size. Bernier, the most intelligent of travellers in India, gives an account of the chace of the antelopes by means of the hunting leopard, trained as in Persia to this sport†.

The Arabian camel, or that with a single hunch, is not unfrequent about Patna. The elephant has been frequently described; the usual height of this intelligent animal is about ten feet, and one of fifteen is esteemed a gigantic prodigy. Apes and monkies abound in various regions of Hindostan; and the orang outang is said to be found in the vast forests on the west of the Sircars. The dogs are generally of the cur kind, with sharp erect ears, and pointed noses: the smallest size is that kept by the Pariars, or degraded poor, rendered doubly miserable by the fanatic prejudices of the abominable system of the Bramins. The other animals are wild boars, bears, wolves, foxes, jackalls, hyenas, leopards, panthers, lynxes; in the north, musk weasels, and many other quadrupeds of inferior size.

The lion seems to have been always unknown in Hindostan, where the ancient sculptors have attempted in vain to represent an animal which they never saw; but Mr. Pennant assures us that they are found near the celebrated fort of Gwalior, about Marwah, and near Cashmir. The royal tiger of Bengal is however a far more terrible animal than the stoutest lion; and was known in classical times, as Seneca the poet calls it *Gangetica tigris*, or the Gangetic tiger. Such is their size and strength that they are said to carry off bullocks, the height of some being said to be five or six feet, and the feline length in proportion. Parties of pleasure, on the isles at the mouth of the Ganges, have often been shockingly interrupted by the sudden appearance of the tiger, prepared for his fatal spring, which is said to extend a hundred feet, not improbable when compared with that of the cat. Such is the nature of the animal, that if disappointed in his first and sole leap, he couches

* Pennant, vol. ii. 339.

† Those of Tippoo are are in the Tower of London; their legs are much higher than those of any other feline animal.

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his tail and retreats. The rhinoceros with one horn, an animal of the swamps, also abounds in the Gangetic isles.

To enumerate the various birds, fishes, and insects of Hindostan, would be a vain and idle attempt in a work of this nature. While the turkey is certainly a native of America, wild peacocks abound in Tibet and Ceylon; our common fowl are also found wild in the jungles, whence they are called jungle fowl. Hence it seems reasonable to conclude that as these animals have been diffused over the civilized world from time immemorial, they must have passed from Hindostan to Persia, whence they were diffused to the western countries.

Minaralogy. The mineralogy of Hindostan may be opened by its most distinguished and peculiar product, celebrated in all ages of the world, that of diamonds, which are indeed also found in Brazil, but of far inferior quality. It is now well known, that Sir Isaac Newton predicted, in his optics, from its rich and peculiar effulgence of light, that the diamond would be found to be an inflammable substance. This prediction has been recently fulfilled by numerous experiments; and it is now universally admitted by chymists that the diamond is only a very pure species of coal. This substance is however the most hard, transparent, and brilliant of all minerals: and is commonly colourless, but is found occasionally of a citron yellow, grey, brown, or black, but very rarely green or blue. The more common form is round, or flatted as it were by attrition; but its chrystallization is the octahedron, or double quadrangular pyramid, and the dodecahedron, with their varieties; and sometimes it occurs in cubes. When examined with a microscope of great power, the texture sometimes consists of irregular fibres, but is generally laminated, or composed of minute layers, like the other genuine gems. It is found in beds of torrents, or in yellow ferruginous earth, under rocks of quartz or sand-stone. That of the Brazils is found in a kind of pudding-stone impregnated with iron ochre.

The chief and most celebrated diamond mines are those near Visiapour and Golconda, both near streams that flow into the Kistna in the southern division of Hindostan; Golconda being in the territory of the Nizam, while Visiapour belong to the Marattas*.

Raolconda, a famous diamond mine in the territory of Visiapour, about forty British miles north-west from the junction of the Beema and Kistna, seems to be the most noted of those in that quarter†. A district on the river Mahanda, to the south of Sumboulpour, is also noted for this rich product; as is Gandicotta, on the southern bank of the river Pennar‡.

The mine near the Mahanda is not the sole example of the diamond being found to the north of the Deccan, for this mineral unexpectedly occurs so far north as Penna, in the territory of Bundelcund, about sixty British miles to the south of the river Jumna, which flows into

* Colore another diamond mine, is on the southern bank of the Kistna, not far from Condavir. Rennell, 290.

† Rennell. 253.

‡ Ibid. 240, where it is not unreasonably inferred that Ptolemy's Adamas is this river.

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the Ganges*. Bundelcund is a mountainous track, about 100 miles square, subject to its Raja.

Next in value to the diamond are the sapphire and the ruby, which are chiefly found in the Birman territories: but the ruby also occurs in Ceylon, which likewise produces an inferior kind of sapphire, the topaz, many curious tourmalins, and other precious stones, minutely described by Thunberg, among which one of the most peculiar is the cat's eye, which like the Italian girasol, has a peculiar reflection, partaking of the nature of felspar†.

Among the metals gold is found in the rivers which flow from Tibet into the Ganges and Indus; but no gold mines seem ever to have been known in Hindostan, which has rather been celebrated for attracting this metal in commerce from other countries. On the other hand Tibet a mountainous country, abounds in this precious metal. Silver seems rare in general throughout the oriental regions; and there is no indication of this mineral through all India. Thunberg mentions iron ore and plumbago among the minerals of Ceylon; but says nothing of copper, which seems also little known in Hindostan. It is indeed to be regretted that more curiosity has not been excited by the mineralogy of our possessions in Bengal, and the other regions of this interesting country; but the attention of the English to this grand branch of science is very recent, and even the avarice of adventurers cannot be tempted to explore what is not known to exist.

Mineral Waters. The natives sometimes seek for the cure of diseases by bathing in the sacred streams; and their devotion to water in general seems to prevent their exploring any medicinal sources. Yet there are a few exceptions, and several warm springs are reputed sacred.

Natural Curiosities. Among the singular features of nature may be mentioned the appearance of the provinces on the rivers, during the season of inundation, when an access is opened by numerous channels to places before inland. The grand aspect of the northern mountains covered with snow, and the wide desert on the east of the Indus, are also grand features; as is the high table land of Mysore, supported by natural buttresses of mountains. The Sunderbunds, and prodigious forests, have been already mentioned. The detached ridges of rock, sometimes crowned with strong fortresses, may be also named among the natural curiosities. But one of the most noted in the the Hindoo tradition is the Gangoutra or fall of the Ganges, sometimes called the Cow's Mouth. According to the report of a Bramin, who pretended to have visited the spot, the Ganges springs from the Peak of Cailasa, seven days' journey to the south of Ladac or Latac, the capital of a small Tibetan principality‡. This peak is about two miles to the south of Mansaror; and the river thence flows, for about seven or eight miles, when it finds a subterranean passage, "until it again emerges in the country of Kedar Nauth, at the place called Gungowtry." This place is marked by Mr. Arrowsmith's map as situated on

* Ibid. 233.
† Thunberg, iv. 220. See the account of Ceylon, ch. 5. of this article.
‡ As. Res. v. 45. vi. 102.

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that source of the Ganges called the Aliknundra; and it seems proved by Mr. Hardwick's journey to Sirinagur, that the veneration of the natives, and the Braminical stations on its shores, confirm the Bramins' report, and proclaim the Aliknundra to be the real and genuine Ganges, being perhaps the furthest source erroneously laid down in the map of Tibet by the Lamas, (if these supposed sources do not rather flow into the Indus;) as almost every name and position laid down by them will probably be found extremely inaccurate. It seems probable that the source of the Ganges is in a calcareous country, whence the river easily works itself a subterraneous passage, as several streams in the north of England, and other calcareous countries. Adam's bridge is also a noted fable of the Bramins, for in their strong imaginations and weak judgments every thing assumes a fabulous tinge. It is a kind of sand bank, with some isles stretching from a promontory to the opposite isle of Ceylon: but the name of Rama has been exchanged by the Mahometans for that of Adam.

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CHAPTER II.

GANGETIC HINDOSTAN, OR, THE COUNTRIES ON THE GANGES.

EXTENT AND DIVISIONS.—BRITISH POSSESSIONS.—REVENUE.—GOVERNMENT.—ARMY.—NAVY.—CITIES AND TOWNS.—SURROUNDING STATES.—BOOTAN.—NIPAL.—SIRINAGUR.

EXTENT AND DIVISIONS. THIS grand division of Hindostan extends from the eastern boundaries of Bengal to the country of Sirhind, a length of about a thousand British miles. The greatest breadth, from the sources of the Chumbul to the mountains of Sewalik, may be about four hundred and fifty British miles; and the least, on the west of the province of Bengal, about two hundred and thirty. It comprises the provinces of Bengal, Bahar, Allahabad, Oude, Agra; with part of Delhi and Agimere, and of Malwa in the south; most of them equal in celebrity to any in Hindostan, and the chosen seats of the power of the Monguls, as well as of mighty kingdoms even in classical times.

BRITISH POSSESSIONS. Bengal, Bahar, with Benares, and some other districts to the west, forming the chief basis and centre of English power in this country, it is proper first to consider them apart, and then proceed to some account of the other provinces. The British settlements here extend about five hundred and fifty miles in length by three hundred in breadth, in themselves a powerful kingdom. The native population is computed at ten or eleven millions of black subjects; exclusive of the English, whose number seems not authenticated. Yet Sir William Jones, from the actual enumeration of one province, concluded that not less than thirty millions of Hindoos were contained in all the British possessions in Hindostan. But Major Rennell estimates the entire population in the time of Aurungzeb at sixty millions; and it seems unreasonable to think that repeated wars have increased the population, or that one half is subject to the British sceptre.

REVENUE. The revenue of these British provinces is computed at 4,210,000*l.* sterling; the expense of collection, military and civil charges, &c. 2,540,000*l.* so that the clear revenue is 1,670,000*l.** They are well situated in respect to security from foreign invasion: were obtained in 1765, under circumstances rather favourable, as the charge of usurpation might have been retorted against any adversary:

* Rennell, cxiv.

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and since they were in our possession, they have enjoyed more tranquillity than any part of Hindostan has known since the reign of Aurungzeb.

Government. The government of Bengal, and its wide dependencies, was first vested in a Governor General and a Supreme Council, consisting of a president and eleven counsellors: but in 1773 these were restricted to four, with Warren Hastings the Governor General, who were to direct all affairs, civil and military, in the kingdoms of Bengal, Bahar, and Orissa; and to controul the inferior governments of Madras on the east and Bombay on the west with Bencoolen in the island of Sumatra.* The Court of Judicature consists of a chief justice and three other judges, with civil, criminal, naval, and ecclesiastical jurisdiction. The Hindoos are governed by their own laws; but it is to be wished that in these and the other British possessions the abominable influence of the Bramins were extinguished, and these fanatics themselves degraded to the cast of Pariars; or rather that the casts were totally abolished, as the most shocking obstacle to all the best feelings and exertions of human nature, that ever was imposed by crafty superstition upon consummate ignorance and simplicity. Christian charity, and the mutual benefits of society, with what our immortal poet styles the milk of human kindness, might then supplant a dreary superstition which estranges man from man, and is accompanied, even in its priests, by practices the most degrading to human nature.†

Army. The military establishment in Bengal is always respectable, but varies according to the situation of affairs. The British troops are supported by the Sepoys, a native militia, who are accustomed to have numerous idle followers, so that the effective men seldom constitute more than a quarter of the nominal army. A force of twenty thousand British soldiers might probably encounter and vanquish two hundred thousand blacks or Hindoos. The decisive battle of Plassey, which secured to us the possession of these opulent provinces, was gained by the formidable array of nine hundred Europeans.‡ It would seemingly be no difficult acquisition, and might prove most salutary for the tranquillity and happiness of the Hindoos, if their whole extensive country were subjected to the British power. For these subjects of the wise Bramins are of all nations the most miserable; and political freedom is to them as unknown as real practical wisdom is to their teachers. In human affairs the smaller evil is commonly the sole object of preference.

Navy. A navy of considerable force might be equipped, and the ships constructed of teak wood, as it is supposed to surpass any others in duration.

Cities and Towns. The chief city of Bengal, and of all the British possessions in Hindostan, is Calcutta, which is said to contain

* Pennant, ii. 327.

† See in the Asiatic Researches, iv. 336. the matricides and infanticides of the pious, simple and philosophic Bramins; and, v. 372. their institutions of human sacrifices! Yet their cruel mercy, p 381, ordered that a woman should never be sacrificed—except on the funeral pile of her husband! Such are the objects of antiquarian veneration: and such are the favourite sages of Voltaire!

‡ Rennell, xcv.

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not less than half a million of souls. The latitude is twenty-two degrees twirty-three minutes north; and the longitude eighty-eight degrees twenty-eight minutes east from Greenwich.

"Generally speaking, the description of one Indian city is a description of all; they being all built on one plan, with exceeding narrow, confined, and crooked streets; with an incredible number of reservoirs and ponds, and a great many gardens, interspersed. A few of the streets are paved with brick. The houses are variously built: some of brick, others with mud, and a still greater proportion with bamboos and mats: and these different kinds of fabrics standing intermixed with each other, form a motley appearance: those of the latter kind are invariably of one story, and covered with thatch. Those of brick seldom exceed two floors, and have flat, terraced roofs. The two former classes far outnumber the last, which are often so thinly scattered, that fires, which often happen, do not sometimes meet with the obstruction of a brick house through a whole street.

"Calcutta is, in part, an exception to this rule of building; for there the quarter inhabited by the English is composed entirely of brick-buildings, many of which have more the appearance of palaces than of private houses: but the remainder of the city, and by much the greatest part, is built as I have described the cities in general to be. Within these twenty or twenty-five years Calcutta has been wonderfully improved, both in appearance and in the salubrity of its air: for the streets have been properly drained, and the ponds filled up; thereby removing a vast surface of stagnant water, the exhalations from which were particularly hurtful. Calcutta is well known to be the emporium of Bengal, and the seat of the Governor-General of India. It is a very extensive and populous city, being supposed at present to contain at least 500,000 inhabitants. Its local situation is not fortunate; for it has some extensive muddy lakes, and a vast forest, close to it. It is remarkable that the English have been more inattentive than other European nations* to the natural advantages of situation in their foreign settlements. Calcutta is situated on the western arm of the Ganges, at about one hundred miles from the sea; and the river is navigable up to the town for the largest ships that visit India. It is a modern city, having risen on the site of the village of Govindpour, about ninety years ago. It has a citadel, superior in every point, as it regards strength and correctness of design, to any fortress in India: but on too extensive a scale to answer the useful purpose intended, that of holding a post in case of extremity; since the number of troops required for a proper garrison for it could keep the field. It was begun immediately after the victory at Plassey, which insured to the British an unlimited influence in Bengal: and the intention of Lord Clive was to render it as permanent as possible, by securing a tenable post at all times. Clive, however, had no foresight of the vast expense attending it, which perhaps may have been equal to two millions sterling."†

In this grand capital of British Asia the mixture of people and manners presents a picturesque and interesting scene. The black Hindoo

* Surely not more than the Dutch. It arises from imitation of the sites in their own countries, while in hot countries the situations should be high.

† Rennell, 58, 59.

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the olive coloured Moor or Mahometan, contrast with the fair and florid countenances of the English; and the charms of the European damsel receive a foil from the dark Hindoo beauties. To the luxuries of the Asiatic, are added the elegance and science of the English life. Even the newspapers are drawn up with care, and printed with elegance: and the Asiatic society, instituted by the late admirable Sir William Jones, may perhaps rival the Academy of Inscriptions at Paris, if the papers of the latter were adopted as a model: and that unaccountable taste, or rather infatuation for visionary antiquities, attempted to be discussed by crude knowledge, and inaccurate ratiocination, were finally dismissed from British culture, to which it seems peculiar and indigenous. No human pursuit can be more useless, for it has not even the utility of amusement; and when founded on the monstrous tales, and traditions, and innumerable forged manuscripts of the Brahmins, who pervert every science and institution to the purposes of their own influence, it is no wonder that this singular pursuit should diffuse darkness instead of light; and every dissertator should confute his predecessor by his own pundit, and his own manuscripts, always as ancient as Brahma, if they be not of the present century: so that the more we read the less we know; and science becomes another term for confusion. With such exceptions and they are not numerous, the Asiatic Researches form a noble monument of British science in a distant country. The recent institution of a college or university at Calcutta, by the Marquis of Wellesley, deserves the greatest applause, for the extent and liberality of the plan. Besides Hindoo, Mahometan, and English law, and the local regulations, there are to be professors of civil jurisprudence, political economy, geography, history, &c. but in the modern extent of science, natural history is far to wide for one or two professors, and it is scarcely possible for a good botanist to be at the same time deeply skilled in zoology, or in mineralogy, far less in chymistry.*

The commerce of Calcutta is very great in salt, sugar, opium, silks, and muslins, &c. the poppy which yields the opium is particularly cultivated in the province of Bahar. Musk, borax, and other commodities, used to be imported from Tibet, in exchange for European cloths and hardware; but this trade is probably interrupted since Tibet became subject to the jealous Chinese. On the Ganges are transported to Asam cargoes of salt, in exchange for gold, silver, ivory, musk, and a particular kind of silky cotton. The cowry shells, used as a small coin, are imported from the Maldives in exchange for rice. The fine muslins are chiefly fabricated in the rainy season, from May to September, and with calicoes form a great part of the exports to Europe.

Dacca. In the eastern part of the British possessions the most considerable town is Dacca, beyond the principal stream of the Ganges, but defended on the east by the Megna or Burrampoot. Dacca is celebrated for manufactures of the most delicate muslins, so much in request in the European market, and which are made from the cotton of the district. It was once the capital of Bengal, and was

* Asiatic Register, vol. ii. p. 106. The languages to be taught are Arabic, Persian, Sanscret, Hindostanee, Bengal, Telinga, Maratta, Tamula, and Canara.

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succeeded by Mushedabad, a modern city. Hoogley, or Ugli, is a small but ancient city, about twenty-six miles above Calcutta, on the grand western branch of the Ganges, which thence receives its name.

PATNA. Patna is the capital of the province of Bahar, situated about 400 miles north-west from Calcutta, being tolerably fortified, and a place of considerable trade, most of the saltpetre in particular, exported to England, being made in the province of Bahar. Rennell argues that Patna is the ancient city of Palibothra. Dr. Robertson infers that it was Allahabad, which is also the opinion of D'Anville. Sir William Jones supposes that Palibothra stood at the junction of the Soan or Sona with the Ganges; that is, he nearly coincides with Major Rennell.* Yet upon the whole the unprejudiced inspector of Ptolemy may perhaps prefer Allahabad.

BENARES. Benares approaches to the western frontier of the British possessions, the district having been ceded to the East India Company in the year 1775. It is a rich, populous, and compact city, on the northern bank of the Ganges, about 460 miles from Calcutta. Benares, anciently called Kasi, was the most early seat of Braminical knowledge, or quackery, in the north. It was not till the tenth or eleventh century of the Christian era that this baleful sect overturned the worship of Boodh in the Deccan. The Bramins seem to be first mentioned by Strabo, who distinguishes them from another race of Indian philosophers called Germani; who were probably the Gymnosophisti of other authors, and worshippers of Boodh.†

ALLAHABAD. On leaving the British possessions, and proceeding towards the west, first occurs Allahabad, in the province so called, at the confluence of the Jumna and the Ganges, a city belonging to the Navab or Nabob of Oude, but of little consequence. Not far to the south-west of Allahabad are the diamond mines of Penna, in the small detached province of Bundelcund.

Lucknow is the present capital of Oude, having superseded Fyzabad, a city on the Gogra, near the ancient city of Aiudh, which seems to have given name to the province. At a considerable distance to the north-west is Berilli, a small but noted town near the northern frontier.

ANCIENT CAPITALS. About fifty British miles west from Lucknow stands Canoge, anciently the capital of a kingdom. Before proceeding to Agra and Delhi, modern capitals of Hindostan, it may be proper to observe that the kingdoms celebrated by the Braminical, or northern traditions and fables were chiefly in this part of Hindostan. The reader is sometimes bewildered by the use of native terms, or uncommon orthography, without any explanation; but the learned Jones

* As. R. iv. 26. Mr. Wilford, with his usual imagination, argues for the mouth of the Cosa on the opposite side of the Ganges.

† The Brachman nations of Pliny are the Barmahs, or Birmans, of modern times, who had probably invaded and seized a great part of Eastern Hindostan. Perhaps even the Βραχμαναι of Strabo are the *Rachans* or Priests of the Birmans.

Where was Pliny's powerful kingdom of Andara in Gangetic Hindostan, and Automela on the Indus? That writer's geography is commonly neglected, though one of the best of antiquity.

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informs us that king Nando, and the noted Chandragupta, the classical Sandracottus, reigned at Patna; and a kind of chronology of their successors may be found in the Asiatic Researches,* with tables of the kings of Audh, or Oude, and Vitora, or Delhi, both in the solar and lunar line, as they are divided by the wildness of Hindoo imagination; with another of the kings of Magada, or Bahar, the last of which contains Nanda and Chandragupta. These lists are inaccurate and confused, the Bramins being more conversant in quadrillions, trillions, and billions of years, than in discussing the little dates of European scholars.† The list of Rajas of Hindostan, from the time of the deluge, published by Anquetil du Perron, begins with Bhart who resided at Hastnapour on the Ganges, now Delhi; but the royal seat was afterwards transferred to Canuche, and the princes often passed the mountains of Sewalik to encounter the *Chinese*, probably some wrong interpretation for Tibet. Benares is also mentioned as a capital; and it is boldly asserted that the eighty-fourth Raja, Andarjal, conquered all Hindostan with Ceylon; a conquest also effected by the hundred and ninth Raja. This list, which is certainly far superior to any of the kind, closes with the conquest by the Mahometans, A. D. 1192. Perhaps our possessions in the south may disclose some chronologies of the kings in that quarter, particularly the Balharas. If any thing can be done in arranging the fictions of the Bramins, and eliciting some shadow of truth, it must be begun by establishing grand land marks of chronology, established by various intelligence derived from remote quarters; and the safest course will be to trace it backward from modern to ancient times, and thus laying a solid foundation, instead of beginning with the fabulous in the vain hope of finding truth.

Agra. These capitals of ancient kingdoms in this quarter were followed by Agra and Delhi. The great and good emperor Acbar constituted Agra the capital of the Mogul empire about A. D. 1566. It was then a small fortified town; but it soon became an extensive and magnificent city, and has as rapidly declined.

Delhi. To the north-west of Agra, near the confines of Sindetic Hindostan, stands the celebrated city of Delhi, the Mahometan capital of India, said to be of considerable antiquity by the name of Indarput. That intelligent traveller Bernier computes the extent of Delhi, in 1663, at three leagues, exclusive of the fortifications; and he represents Agra as of wider circuit. This metropolis may be said to be now in ruins; but there are many noble and splendid remains of palaces with baths of marble.‡ The grand mosque is a magnificent edifice, of marble and red free stone, with high minarets, and domes richly gilt. One of the quarters of the city has been very thinly inhabited, since the dreadful massacre by Nadir Shah, in which one hundred thousand people are said to have perished. The royal gardens of Shalimar are said to have cost one million sterling, in canals, pavillions, &c. decorated with great profusion. When our author visited this city, in 1793, he was introduced to the last remnant of the Moguls, Shah Allum,

* v. 318.

† The words used for those high numbers are authorized by Sir William Jones, ii. 115; but they are unknown to Johnson.

‡ As. Res. iv. 417.

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then seventy years of age and blind, being here kept in a kind of captivity by Sindia the Maratta chief.

Oujein. The city of Agimere, or Ajimer, may be more properly allotted, with the greater part of that province, to Sindetic Hindostan: but Oujein may be considered as the furthest city in the south of that portion now under view. Oujein is about six miles in circumference, surrounded by a strong wall, with round towers. The houses partly brick, partly wood, covered with lime, trass, or tiles: the Bazar or market is spacious, and paved with stone: there are four mosques, and several Hindoo temples, with a new palace built by Sindia. On the south runs the river Sippara, which here suddenly turns north, pursuing its course into the Chumbul, the last a large river, not less than three quarters of a mile in breadth at some distance from its egress into the Jumma.* About a mile to the north are ruins of old Oujein, brick walls, stone pillars, pieces of wood, and various utensils, with ancient coins. The superjacent soil is a black mould; and this catastrophe must have happened when the river changed its course to the westward, by some aqueous concussion of nature, 1800, or 800 years ago, as usual in Hindoo chronology.

Turning to the east, the river Nerbudda may for a part be considered as the most southern limit of Gangetic Hindostan; yet concerning Gurrah, a city or town of some note, there are no details; and the other names are too unimportant for general geography.

Gwalior. But the noted fort of Gwalior must not be omitted, being a striking object in Hindoo topography. The insulated rock on which it stands is about four miles in length, but narrow: the sides are almost perpendicular, from two to three hundred feet, above the surrounding plain.† On the top there is a town with wells and reservoirs, and some cultivated land. This celebrated fortress, which is about eighty miles to the south of Agra, was taken by surprise by a few English under Major Popham in 1779. Such isolated forts on rocks were not uncommon in ancient India; and that of Aornos is distinguished in the history of Alexander. A theorist might argue that these are the summits of ancient mountains immersed in the rich vegetable soil of Hindostan, which has been swept by primeval waters from the mountains of Tibet, now barren rocks, and even from the elevated desert of Cobi, which in consequence was left a barren mass of sand.

Surrounding States. Before closing this brief delineation of Gangetic Hindostan, the most large, celebrated, and best known quarter of that extensive region, it may be proper to offer some remarks on the surrounding states on the east and north. The Roshawn of Rennell is the same with Aracan, being merely a Hindoo term for that country. His Cossay is only another name for Meckley, or the country of the Muggaloos, a people between Asam on the north, and Aracan on the south, whose chief town is Munnipura.‡ These eastern tribes of rude mountaineers are little known; but approach to the savage state. Asam has been already briefly described in the account of the river Burrampoot; but to the west open the wide and obscure regions of Tibet.

* As. Res. vi. 40. † Hodges, 139. ‡ As. Res. v. 223 and 230.

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BOOTAN. It would seem from Mr. Hardwick's journey to Sirinagur, that the name of Bootan includes most of the south of Tibet, particularly those regions which are omitted in the doubtful map of the Lamas, who in their account of these frontiers use Chinese or Tataric terms, or perhaps rather invented appellations at least equally useless, as they are alike unknown to the Hindoos and the natives. The names indeed throughout Du Halde's maps of Tatary and Tibet are far too numerous, a circumstance usual in the old invented maps, in the first ages of European geography, in which even farms and huts were sometimes inserted. It is to be regretted, that Turner in his journey, has not indicated the western limits of Bootan, nor the native reports concerning the adjacent countries.

NIPAL. Of Nipal there is a short account by a Jesuit*, whence the maps might be somewhat improved; that of Du Halde closing with Nialma, and some names not to be found in the genuine accounts, so that the Lamas appear to have been stopped in their progress by the snowy ridge of the Himmala. The recent account by Bernini bears that, in passing the frontier mountains, suddenly appears the extensive plain of Nipal, about 200 miles in circumference, resembling a vast amphitheatre covered with populous towns and villages. To the north of the plain is the capital of Catmandu, containing about 18,000 houses, which might yield a population of seventy or eighty thousand. To the south-west is Lelit Pattan, where the author computes 24,000 houses; this part of the country bordering to the south on the small state of Macwanpur, between Nipal and Hindostan. The third principal city stands to the east of the last mentioned, and is called Batgan. Timi and Cipoli are also large towns; and all these names being unknown to the Lamas, it is evident that their progress was here impeded; and in the south and west of Tibet in particular deserves no credit. In Nipal there are two religious sects, one a schism of that of Tibet, the other Hindoo. The temples, by this account, are peculiarly elegant, seeming to resemble those of Ava or Siam. At Banga, a castle, three miles distant from the city of Lelit Pattan, is a temple of surprising magnificence, the great court being paved with bluish marble, interspersed with large flowers of bronze. To the north of Catmandu is a hill called Simbi, upon which are some tombs of the Lamas of Tibet, with inscriptions. By the Jesuit's account the kingdom of Nipal is ancient, and the language peculiar; but it has recently been injured by civil wars, fostered by the king of Gorca. To the west of Nipal are no less than twenty-four petty kingdoms, one of which is Lamgi; another to the south is called Tirhut. The king of Gorca has recently effected the conquest of Nipal, and of the Ciratas to the east; and other kingdoms as far as the borders of Coch Bihar. Amidst these multifarious names, there is not one known to the Lamas, and it appears that the wide regions of Tibet, and its dependencies may be pronounced, in this the beginning of the nineteenth century, to be almost utterly unknown†.

* As. Res. ii. 307. Giuseppe Bernini, who died in 1733. His works were printed at Verona in 1767.

† The missionaries were confined to particular districts, but the curious reader may consult the materials of Cassiano in the *Alphabetum Tibetanum*,

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To the west of Nipal, the states of Gorca and Kemaoon on the Gogra, are arranged on the frontiers of Gangetic Hindostan. Of these countries little is known; but it is to be hoped that the Asiatic Society will send scientific men to examine them, with the remainder of Tibet and western Tatary. This attempt would merit the highest applause; and the jealousy of the Chinese might perhaps subside upon being informed of the merely scientific nature of the design, or be illuded by disguise, or pretensions to the Hindoo faith, for a Bramin might travel in any direction. In the whole circle of geography there does not remain a range of discovery so curious and important. The centre of Africa can present little of general interest; while that of Asia may be regarded as the cradle of nations which have been diffused over our whole hemisphere.

Sirinagur. Of Sirinagur, laid down in the maps as the most northern frontier country, an interesting account has recently appeared*. The mountains between Hardwar and the higher region are often of argillaceous marl, though the rivulets roll down masses of opake quartz and granite. Forests abound; and many curious vegetables delight the eye of the botanist. To the north is seen the lofty chain of snowy mountains, passing in an extensive line from east to west. This range, instead of being about fifteen miles, as supposed, to the north of the town of Sirinagur, is said by our traveller to be not less than eighty English miles. One of the most conspicuous summits is that of Hem, rising in four or five conical peaks; and near its base is a place of Hindoo worship called Buddrinaut. Upon approaching the town, the rocks were a coarse dull granite, with beds of argillaceous schistus, several rivulets descend into the Aliknundra, here acknowledged by the Hindoos as the genuine and divine Ganges. The Raja is of the Hindoo faith; but the country, a mass of mountains, extremely poor. The channel of the river here is not less than 250 yards in breadth; which if the Bagharíti exceed, it must be a noble stream†. The sands are washed for gold; and about forty miles to the north of the town are two copper mines, with one of lead about fifty miles to the east. The natives follow the Hindoo faith; and Mr. Hardwick has published a curious list of the Rajas, in which the reigns are put ridiculously long; but as they are in number sixty-one, they cannot well ascend much above 600 years. It is to be regretted, that he did not proceed to the source of the Ganges, computed to be fourteen days distant, probably not above 140 miles through a rocky and difficult country‡. From the information of the natives, the course is east and west, for

of Giorgi, and the Let. Edif. tome 15, with Astley's Collection, vol. 4. and Phil. Trans. 68. See Rennell, 307. Du Halde, iv. 571, gives a slight account of his map of the country.

* As. Res. vi. 309.

† Rennell, 370, allows that the Aliknundra is the larger stream, yet he unaccountably supposes the other to be the true Ganges, in opposition to the Hindoos and Bramins themselves upon the spot.

‡ In travelling through the Andes, Ulla discovered that an Alpine day's journey, from the numerous windings, ascents, and descents, may not sometimes exceed four miles of direct distance.

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about three days from Sirinagur; then north-east and south-west, receiving many mountain streams, and at Bissenprag, a river from the east as large as itself, called Dood Ganga or the Milk river. Bissenprag is near the base of a mountain, on which stands the famous temple of Buddrinaut. All these circumstances unite with the worship and temples of the Hindoos to evince that this river is the genuine Ganges: but the most recent maps of this part of Tibet seem very defective in positions; and it would appear, among others, that Cashmir is far more near to Sirinagur than is commonly supposed.

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CHAPTER III.

SINDETIC HINDOSTAN; OR THE COUNTRIES ON THE RIVER SINDEH OR INDUS.

EXTENT.—WESTERN BOUNDARY OF HINDOSTAN.—CHIEF CITIES AND TOWNS.

EXTENT. THIS part extends from the northern mountains of Cashmir, and the Hindoo Koh, in the north of Cabul, to the mouth of the Indus, a length of about 900 British miles, and about 350 in medial breadth. Besides part of the provinces of Delhi, and Agimer, it contains the extensive province of Moultan, with Lahore, Cashmir, Cabul, the frontier region of Candahar, and that of Sindi at the mouth of the Indus. These provinces being the most remote from the seat of British power, and the greater part of modern travellers having visited Hindostan by sea, they are less accurately known than any other quarter.

The chief cities which occur in this extensive region are Lahore, Cashmir, Cabul, Ghizni or Gasna, Candahar, Moultan, and Tatta in the Sindean Delta. On the east of the Indus, or in Panjab, the Seiks, a new religious sect, form the leading power; while on the west, and even as far as Cashmir, the dominions of a Persian Shah whose seat of empire is at Candahar, comprise all the provinces, with several in the east of Persia, and to him even Sindi is tributary.

WESTERN BOUNDARY. Yet by many geographers the river Indus is esteemed as the boundary between Persia and Hindostan, in which view the Persian Shah possesses little in Proper Hindostan, except the country of Cashmir. But D'Anville, in his large map of the world as known to the ancients, has justly arranged in ancient India large countries to the west of the Indus, including not only all the streams that join that river from the west, but even the river Tomerus corresponding with the Haur of modern maps, which seems infallibly to have belonged to the Persian province of Gedrosia. Pliny considers the Indus as the extreme western boundary of India*; which, from Strabo appears to have been the received opinion, from the age of Alexander to his own time. Arrian also describes the river Indus as the western boundary of this country, but including the Delta, and on the

* vi. 17.

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north-west bounded by the Hindoo Koh, so that even the Kameh, and Comul were Indian streams, being the Gurcus and Cophenes of antiquity, the last specially mentioned by the accurate Arrian as Indian. Hence it is evident, that when Major Rennell regards the Sindeh as the western boundary of Hindostan, he has not expressed the opinion either of ancient or modern geographers; the Hindoo Koh, or Indian Caucasus of the ancients, being the north-west boundary; and even towards the south, where the limits of Persia do not seem to have been accurately defined, Ptolemy indicates a considerable space on the west of the river as included in India, an opinion adopted by D'Anville not only in his ancient geography, but in his modern map of Asia; in which indeed, by a mistake in the chain of the mountains, he had included the city of Candahar in Persia, but seems on the other hand too far to have extended the limits on the south, when he has included even the town of Guadal in Hindostan*. As Major Rennell justly considers the city of Candahar as the gate of Hindostan towards Persia, while Cabul stands in the same view towards Tatary, it is evident that the Sindeh cannot be considered as a boundary†. The southern limit between Sindi and Mekran he does not define; but it may be regarded as extending to the river Araba, the Arabius of Ptolemy. The cause of this uncertainty in the south-east of Persia is, that the country is wild and desert, and has in all ages been thinly inhabited, having been so much neglected, that it is chiefly possessed by Arabian fishers from the opposite shores.

This discussion became necessary to illustrate the provinces and boundaries of Sindetic Hindostan; and it will hence appear that when either ancient or modern geographers speak of the Indus as a western boundary, the expression is only to be taken in a loose sense, as when they speak of India beyond the Ganges, in which they include the Burrampooter, and several streams to the east of that majestic river.

This brief account of Sindetic Hindostan shall begin with the north-east, and end with the south-west, after mentioning that Agimer, which may be regarded as the most eastern city of this division, is little remarkable, except for a strong fortress on a hill.

Chief Cities and Towns. The town of Sirhind is placed by modern maps on the river Caggar, which D'Anville bends west into the Indus, but Major Rennell supposes it to follow a detached course into the gulf of Cutch: perhaps it may be lost in the great sandy desert.

Lahore. Lahore, now the capital of the Seiks, was the residence of the first Mahometan conquerors, before they advanced to the more central parts; and including the suburbs, was supposed to be three leagues in length. From Lahore to Agra, near 500 English miles, there was an avenue of shady trees‡. The river Rauvee passes by

* Chardin and several other travellers in Persia, consider the Indus as its western boundary; but the idea is vague and objectionable. Dr. Vincent, an able inquirer into the voyages of Nearchus, observes, p. 198, that the Arabitæ and Oritæ, on the west of the Indus, were Indian tribes.

† 153, 167, compared with p. xix.

‡ Rennell, 82; but others only extend it to Delhi.

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Lahore, being the Reva of the Hindoos, said by them to derive its source from the mountain Vindhia, as the Sarjou from the Himar or Himala*. Wesdin adds that the Vindhia mountains occur in no map; but are in longitude ninety-four degrees from Ferro, and latitude thirty-four degrees. He asserts that the Reva is the chief tributary stream of the Sindeh; but as he only visited the Deccan, his distant intelligence seems erroneous, nor are his other Indian rivers easily explained.

Cashmir. Almost due north from Lahore, at the supposed distance of about 200 British miles, stands Cashmir, the capital of the delightful province so called. This city is said to be also called Sirinagur, having been confounded with the town of the same name, already mentioned in the account of Gangetic Hindostan. To avoid the confusion arising from identity of names, it is better to follow the authorities of Bernier and Forster, who denominate the capital of Cashmir by the same term as the country. "The city, which in the ancient annals of India was known by the name of Siringnaghur, but now by that of the province at large, extends about three miles on each side of the river Jalum, over which are four or five wooden bridges, and occupies in some part of its breadth, which is irregular, about two miles. The houses, many of them two and three stories high, are slightly built of brick and mortar, with a large intermixture of timber. On a standing roof of wood is laid a covering of fine earth, which shelters the building from the great quantity of snow that falls in the winter season. This fence communicates an equal warmth in winter, as a refreshing coolness in the summer season, when the tops of the houses, which are planted with a variety of flowers, exhibit at a distance the spacious view of a beautifully checquered parterre. The streets are narrow, and choaked with the filth of the inhabitants, who are proverbially unclean. No buildings are seen in this city worthy of remark; though the Kasmarians boast much of a wooden mosk, called the Jamah Mussid, erected by one of the emperors of Hindostan; but its claim to distinction is very moderate†." For a particular account of the country of Cashmir the reader is referred to the same traveller, who informs us that this delicious vale extends in an oval form, about ninety miles from south-east to north-west. It was subject to the Zagathai princes (a Tataric race, who speak the same language with the Turks) till A. D. 1586, when it became subject to the Monguls, and afterwards to the Afgans. Rice is the common product of the plains; while the surrounding hills yield wheat, barley, and other crops. The celebrated shawls are only manufactured here: the material being from Tibet, especially those districts which lie at a month's journey to the north-east‡. The price at the loom is from twenty shillings to five pounds, and the revenue is transmitted to the Afgan capital in this fabric. The Cashmirians are stout and well formed, but their features

* Wesdin, 232.

† Forster, vol. ii.

‡ Ibid ii. 18; if this intelligence be genuine, it evinces very gross errors in modern maps, which suppose the northern boundaries of Tibet to be the same with those of Cashmir. The north mountains of Tibet, would thus give source to the rivers of Little Bucharia.

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often coarse and broad, even those of the women, who in this northern part of India are of a deeper brown complexion than those of southern France or Spain. The dress is inelegant, but the people gay and lively, and fond of parties of pleasure on their delicious lake. The Afgan government has however somewhat crushed their spirit. The language is derived from the Sanscret, but the Persian is chiefly used in elegant composition. During the summer heats, the great Moguls used to retire to Cashmir, where they enjoyed a cool and refreshing climate.

The wide space from Cashmir to Cabul is more remarkable for numerous streams and mountains than any other circumstance; and the conquerors of India preferred the south. Even in Cabul the mountains are said to be covered with perpetual snow; but the country is diversified with gentle hills, fertile vales, and stately forests. It is also intersected by many streams; and besides delicate fruits and flowers, is abundant in other productions. Ghizni was the ancient capital of the country, of which Candahar was then reckoned a part*.

CABUL. The city of Cabul is the capital of the dominions of the Persian Shah, usually styled king of Candahar, whose dominions extend westward beyond the sea of Durrah, including a great part of Corasan, with the large Persian province of Segistan, being about 800 British miles in length, by about half that breadth. Cabul is esteemed a considerable city, in a romantic healthy situation.

GHIZNI. Ghizni or Gasna is remarkable as the seat of the first Mahometan conquerors of Hindostan, whose empire almost corresponded with the modern kindgom of Candahar.

CANDAHAR. The city which gives name to this last is of small account, except as a noted pass from Persia into Hindostan.

Having thus reached the most western frontier, and nothing further worthy of commemoration arising on that side of the Sindeh, it will be proper to pursue the course of that grand stream towards the south.

ATTOCK. The small city and fortress of Attock were only built by Ackbar, 1581; but the vicinity was memorable in ancient times as the general passage from India to the west. Mr. Forster crossed the Indus about twenty miles above Attock, and found it a rough rapid stream, about a mile in breadth, where it was not interrupted by isles. This size indicates a remote source, and many tributary streams. The water was extremely cold in July, and discoloured with fine black sand†.

MOULTAN Moultan, the capital of the province so called, is about 170 British miles to the south of Attock, on the large river Chunab not far from its junction with the Indus, along which there is an uninterrupted navigation for vessels of 200 tons, not only to this city but as far as Lahore‡. Moultan is a small city, and of little consequence, except for its antiquity and cotton manufacture.

* Rennell, 152.

† D'Anville places Ashnagur on the Indus, about eighty British miles above Attock. This place, noted in Hindoo history, (Wesdin, 36.) is omitted by Rennell, whose map of Hindostan, is in the north-west singularly restricted.

‡ Rennell, 178: yet, p. 93, he mentions the river of Moultan as being choaked up about 1665.

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TATTA. The last remarkable city on the Indus is Tatta, the capital of the province of Sindi, and situated within the Delta, the upper part of which is well cultivated, while the lower, instead of the lofty forests of the Gangetic Sunderbunds, presents only low brushwood, swamps, and lakes. In the months of July, August, and September, when the south-west monsoon brings rain in most parts of India, the atmosphere is here often clouded, but no rain falls except near the sea. At Tatta the heats are so violent, and the winds from the sandy deserts on the east and north-west so pernicious, that many precautions are used. The manufactures of this city in silk wool from Kerman, and cotton, have greatly declined. The Mahometan prince of Sindi is tributary to Candahar.

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CHAPTER IV.

CENTRAL HINDOSTAN, OR THE MIDDLE PROVINCES.

BOUNDARIES.—CHIEF CITIES.—SIRCARS.—ANCIENT TRADE.—PYRATES.

BOUNDARIES. THIS division is chiefly bounded by Gangetic Hindostan on the north; and on the west by the sandy desert, and the ocean. The southern limit is the river Kistna, with its tributary stream the Beema; while the east is washed by the bay of Bengal. The length east to west from Jigat Point to Cape Palmiras, is little less than 1200 British miles; while the medial breadth is about 400. In it are comprehended the province of Orissa, with part of Golconda, Berar, Dowlatabad, Candeish, and Guzerat, and other districts of inferior name; and on the eastern shore are the British provinces of the Sircars.

CHIEF CITIES. In a natural transition from the division of India last described, the province of Guzerat first presents itself, like a large promontory; but the shores seem little adapted to commercial purposes.

AMEDABAD. The chief city, Amedabad, is considerable, and well fortified, taken by the English under General Goddard in 1780, restored to the Marattas in 1783.

CAMBAY. Cambay, at the distance of more than fifty miles, may be called the sea port of this capital; itself a handsome city, formerly of great trade in spice, ivory, silk, and cotton cloths; but the harbour was impeded with sand and mud, and is now little frequented, the trade being chiefly transferred to Surat. The sovereigns of Guzerat were not a little powerful, and long withstood the power of the Monguls: and towards the east of this province appears to have been the seat of the great Balhara, or Hindoo emperor of the Arabian authors, whose capital was Nahalwanah, or Nehalwarah, lat. twenty-two degrees, but the oriental longitudes, or indeed the numerals in general, in their geographical works, are of noted inaccuracy.* Renaudot has however erred grossly when he confounds the Balhara of central Hindostan with the Zamorin, or Samoory, the king of an extensive territory

* The ancient Nerhwalah is now Puttan, north of Amenadab, and was formerly the capital of Guzerat. Rennell, xlvi. 228. See a list of the kings in Bernoulli, i. 413. where the race of Bagela are perhaps the Balharas of the Arabs.

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around Calicut, whose name and diminished splendor exist to this day. Edrisi, in the twelfth century, mentions that the people here were worshippers of Boodh, the connection with the south of Hindostan being more intimate than that with the north; to which last the worship of Brahma, and the sect of the Bramins appear to have been restricted at a late epoch. But the Arabian authors are certainly fabulous, when they suppose that the power of the Balhara extended even to China, when it probably only comprised the central parts of Hindostan: yet their opinion of his power is indicated, as the fourth grand sovereign in the world, with the emperors of China and Greece, and the Arabian chalifs.

Surat. Surat was formerly more celebrated as the port whence the Mahometans of India embarked on their pilgrimage to Mecca, than for any other circumstance, though reported to have been an important city in ancient times. The Portuguese seized Surat soon after their arrival in Hindostan; and it was among the first places in this country frequented by the English, of whose factory here a view may be found in Mandelslo's Travels, who describes the harbour as small and incommodious; yet it was the only one on the western coast in which ships could be secure during the monsoon rains from May to September.*

Bombay. Bombay, at a considerable distance to the south, is a well known English settlement, on a small island, about seven miles in length, containing a very strong capacious fortress, a large city, a dock yard, a marine arsenal.† It was ceded to the English in 1662 by the Portuguese, as part of the dower of the queen of Charles II. In the same sound, or small bay, are the isles of Salsett and Elephanta, in which are subterranean temples, which, as well as the grand monuments at Ellora, a considerable distance inland, are probably foundations of the great Balharas in the tenth or eleventh century; for the subjects are now known to belong to the common Hindoo system, and might thus have been works of the most recent erection.

Other Cities. On leaving the shore, and proceeding towards the east of central Hindostan, first occurs the city of Burthampour, of small note. Ellichpour is of considerable importance, being the chief city of Berar. Nagpour is the capital of the eastern division of the Maratta empire, as Poona is of the western, being a modern city of small size. At Nagpour, which may be called the central city of Hindostan, the rainy season commences with the south-west monsoon.

Not far to the east of this city begins that extensive and unexplored wilderness, which is pervaded by the great river Bain or Baun Gonga, and terminates in the mountains bounding the English Sircars.‡ The

* For a recent account of Surat see Stavorinus, vol. ii. p. 479. The inhabitants are said to be 500,000, a considerable part of whom are *Moors*, that is Arabs, Persians, Monguls, Turks, professing Mahometanism; but retaining some pagan rites, as the *salaamut*, or salutation to the moon, &c.

† Rennell, 31. the name is Portuguese *Buonbahia*, a good bay.

‡ See Mr. Blunt's journey, above quoted, for minute details concerning this formerly obscure region. Asiat. Reg. ii. 128—260. This important journey appears to have been undertaken solely with geographical views; and it is

acquisition of these provinces has been already mentioned in the first chapter. They present little memorable; for the famous temple of Jagernaut, which in reputation succeeded that of Sumnaut in Guzerat, destroyed by Mahmud of Ghizni in the eleventh century, stands to the north of the Chilka lake. Nor does there appear to be any capital city, or chief town, in the Delta of the Godaveri, or throughout the Sircars, the wide track of forest on the north-west having prohibited inland trade or intercourse. Masulipatam is indeed a place of some account; but standing on the northern branch of the Kistna, may be arranged in the southern division of Hindostan.

Aurungabad. On turning towards the west few places of note arise, except Aurungabad, a modern city, deriving its name from Aurungzeb, in whose time it was the capital of the Deccan, or parts to the south of Hindostan proper. It was afterwards the metropolis of the Nizam's territory, till the preference was given to Hydrabad. Near this city is Dowlatabad, which gives name to the province, with a singular fortress on a peaked rock.*

This central part of Hindostan nearly corresponds with the Deccan, or southern countries of the Monguls, who did not pass the Kistna till a recent period; and instead of using the term in its just acceptation, applied it to the southern provinces of their empire.

Ancient Trade. Though formerly the seat of great power, and the western coasts greatly frequented by foreign merchants of all nations, the harbours have since been impeded, and the commerce has declined, being now chiefly transferred to the Ganges, which presents such superior advantages as amply compensate for the greater distance of the voyage. The Roman and Arabian fame of the western shores has vanished; and silence prevails in the streets of Barygaza or Baroach, the port of the great inland city Tagara, whence the products of India, gems, ivory, myrrh, pepper, ginger, and cotton cloths, plain or ornamented with flowers, were in the time of Arrian exported to the western world.

said that the East India Company entertain the highly laudable intention of publishing an entirely new map of Hindostan. The hitherto unexplored region appears to consist almost entirely of high rocky mountains and forests, thinly inhabited by the Goands, a naked, savage, and ferocious race, who extend even to the north of Corair; which last province abounds in game and many kinds of deer, with wild buffaloes, black bears, leopards, and particularly the royal tiger, the latter common in the sylvan regions to the S. where they depopulate whole villages. Omercuntuc, which gives source to three rivers, the Nerbudda, the Soan, and the Jobala, (see Rochette's Map), is a high table land; the rocks of red granite, and the soil of red clay. To the south a great range of mountains proceeds between the Baun Gonga and Mahanada, giving source to streams that flow east and west into these rivers. This ridge passes from Omercuntuc through Zelingana and Bustar, to those of the northern Sircars.

The Baun Gonga is also called the Waini, and rises in the mountains of Ghoteesgur. The river Inderowti is likewise considerable. The journey was not accomplished in all its objects; but has nevertheless greatly served geography, and is accompanied with a journal of the route and bearings, and several astronomical observations.

* See the print, Bernoulli, i. 480.

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In later times the southern part of this coast was remarkable upon another account, being the chosen residence of daring pirates. Yet these freebooters were known even to Pliny and Ptolemy, being stimulated in all ages by the richness of the commerce. They resemble on a small scale the piratical states of Barbary, and a succession of *Angrias* was continued till 1756, when we seized Gheriah, the principal fortress.

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CHAPTER V.

THE SOUTHERN DIVISION OF HINDOSTAN.

BOUNDARIES.—BRITISH POSSESSIONS.—CHIEF CITIES AND TOWNS.

BOUNDARIES. THIS part, which may also be called the Deccan or South, in the most proper acceptation of the term,* is bounded, as already explained, by the river Kistna, and its most northern subsidiary streams flowing into the Beema. Hence it will extend from the latitude of Bombay to the southern point of Cape Comorin, about 830 British miles in length, and about 350 of medial breadth. It contains nearly the whole of the province of Visiapour, and the most important part of that of Golconda, with the central kingdom of Mysore, the long eastern province of Carnada, or the Carnatic, the principalities of Tanjore, Travancore, and the Samorins of Calicut, the pepper coast of Canara, and other districts, of which Concam is supposed to be the Kamkam, which the Arabian authors mention as adjoining to the territory of the Balhara. In this division of Hindostan may also be included the island of Ceylon, the coasts of which are now possessed by the English, who have supplanted the Dutch; while the native princes retain the extensive inland parts.

BRITISH POSSESSIONS. In addition to the district around Madras, the British power was, in 1792 and 1799, extended over wide provinces in the south and west of Mysore, and Seringapatam the capital is also in our possession, so that our territories in this portion of Hindostan only yield in extent and consequence to those on the Ganges. Seringapatam is not only detached, but is by its inland situation little adapted for a commercial capital; it may therefore be perhaps expected that Calicut, an ancient and celebrated emporium, or some other place on that coast, will be selected as a metropolitan town of the new acquisitions.

CHIEF CITIES AND TOWNS. In recent times Seringapatam may be regarded as the most important city in this portion of Hindos-

* It was also called in general Carnada, or the Carnátic, (Rennell's last Memoir, page 20); and was mostly subject to one king or raja, whose capital was Bijanagur, on the south bank of the river Toombudra, said to have been founded by Belaldea, A. D. 1344, being thus placed to guard the northern frontier of his empire. The ruins are extensive, several rugged hills and rocks being covered with temples still beautiful: the circumference appears to be about eight miles. (Ib. 40.) The empire of Bijanagur seems to have continued about eight hundred years.

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tan. It is situated in an isle, surrounded by the river Caveri, which is even here about five feet deep, and runs over a rocky channel. The length of this isle is about four miles, and the breadth about a mile and a half; the western side being allotted to the fortress, distinguished by regular outworks, magnificent palaces, and lofty mosks; for Tippoo and his father were Mahometans, not averse to the persecution of the Hindoos and Christians.* The environs were decorated with noble gardens; and among other means of defence was what is called the *bound hedge*, consisting of every thorny tree or caustic plant of the climate, planted to the breadth of from thirty to fifty feet. When the strength of the fortifications of all kinds, and the number of Tippoo's troops and artillery, are considered, our repeated successes must afford a convincing proof that no climate can overcome British courage, conduct, and perseverance.

In this central territory we also possess several considerable towns. Salem and Attore in the east; Dindigul, Coimbetore, Palicaud, on the south; and on the western coast Paniany, Ferokabad, Calicut, now nearly deserted, Tellicherri, Mangalore: and our northern possession of Carwar is within forty miles of the Portuguese settlements of Goa; while on the south we approach within a like distance of Cochin.

Calicut. Of these places Calicut is memorable as the first Indian port visited by the Portuguese under Vasco de Gama, and as the seat of the Zamorins, who at that period appear to have possessed the whole Malabar coast from Goa to Cochin; and perhaps by the interruption of the Gauts or mountains of Sukhien, at Palicaud, where the only river of consequence falls to the west, their power might extend inland; but at any rate it seems to have then rivalled any sovereignty on the south of the Kistna.

Madras. The native rajas of Mysore, a part of whose dominions we have also shared, were princes of some eminence, supplanted by the Mahometan usurpation of Hyder. In the Carnatic we have long held Madras, where our ancestors settled about 1640; but the fortress, which is strong, and includes a regular well built city, is of modern date. Unhappily there is no port, nor is there indeed one haven for large vessels, from the mouth of the Ganges to Trincomali on the eastern side of Ceylon, which renders this last of singular benefit to our commerce. Through this wide extent of fifteen degrees, or more than 1000 British miles, the coast forms nearly an uniform line, infested with a dangerous surf, and scarcely accessible, except in the flat-bottomed boats of the country. But, if found necessary, European industry might certainly form a port at the wide but impeded mouths of the Godaveri, the Kistna, or the Caveri; and when our colonies shall have assumed a permanent and steady progress of population, it is probable that such designs may be executed.

Arcot. Not far from the western frontier of our settlement at Madras stands Arcot, esteemed the capital of Carnada, or the Carnatic. The Navabt often resides at Madras. In his dominions there are several celebrated temples, visited by numerous pilgrims; and in general

* Pennant's View of Hindostan, vol. ii. p. 82.

† This word, also written *Nabob*, implies lieutenant-governor, or viceroy; but the title became hereditary.

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the southern parts of Hindostan display more numerous edifices, and other marks of civilization, than the northern. Yet the successive settlements of the Arabs, and latterly of many European nations, seem to indicate an inferiority of intellect and power in the natives. For neither in China, nor exterior India, have such foreign conquests been achieved; and in this respect the Hindoos seem rather to approach the rude tribes of Africa and America, or at most the slight civilization of Mexico or Peru, than the union, spirit, and discipline, to be found in states truly civilized.

Tranquebar. Having thus briefly mentioned the British possessions in this quarter of Hindostan, and their nearest ally, it may be proper to indicate a few other remarkable places to the south of these possessions. Tranquebar is a noted Danish settlement in the kingdom of Tanjore, which embraces the wide Delta of the Caveri. This settlement was formed about 1617, and has been chiefly remarkable on account of the Lutheran missionaries, who resorted hither to convert the Hindoos, and have sometimes contributed to illustrate natural history. Pondicheri was the principal settlement of the French, founded in 1674, and before the war, 1756, was a large and beautiful city.

Cochin. On the western coast, or that of Malabar, stands Cochin, on the northern point of a long tract of land, forming a kind of island, surrounded on the east by a creek of the sea, which receives several streams. But this seemingly ample harbour is obstructed by a dangerous bar. When the Portuguese first visited Hindostan, Cochin and the surrounding territory were possessed by a native raja; and the celebrated Vasco de Gama died here, 1525. This city remained subject to the Portuguese till 1660, when it was taken by the Dutch, who seem still to be permitted to retain this settlement, or perhaps have resigned it to the French. The surrounding creeks and marshes of this low and unhealthy shore abound with fish and game.*

Goa. To the north of the British territories first occurs Goa, formerly a capital settlement of the Portuguese, and a noted seat of their Inquisition. This city, once magnificent, stands on a small isle, in the midst of a beautiful bay, which receives a rivulet called the Gonga, and two or three others from the Balagauts, or highest mountains of Sukhien, which form a grand distant prospect, while the intervening scene is variegated with hills, woods, convents, and villas. It was seized by the celebrated Albuquerque, the greatest of the Portuguese commanders in India, A. D. 1510. It afterwards became another Malacca, another centre of Portuguese trade.† The harbour is ranked among the first in India, and if in the hands of the English would probably resume its former consequence.

Poona. The other parts of the coast presenting few remarkable objects, it will be proper to pass the mountainous ridge, and first visit Poona, the capital of the western empire of the Marattas, but a mean defenceless city; the archives of the government, and in all appearance the chief seat of power, being at Poorunder, a fortress about eighteen miles to the south-east.

* Wesdin, 130, gives a good account of Cochin.
† Pennant, i. 112.

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VISIAPOUR. Visiapour, in the Maratta territory, also called Bejapour, is a considerable city, and was once the capital of a large kingdom of the same name. In the vicinity are celebrated diamond mines.

HYDRABAD. Hydrabad is the metropolis of the Nizam's territory, and particularly of the celebrated kingdom or province of Golconda, but seems otherwise little remarkable. Betwixt these two last named cities stands Calberga, formerly the capital of a powerful kingdom, that of the Deccan, under the Bamineah dynasty, as already mentioned in the general view of Hindostan. On passing the Kistna, few places of distinguished note occur. The regions on the great river Toombuddra, which rises nearly in the parallel of Seringapatam, and pursues a northern course of about 350 British miles till it join the Kistna after passing Canoul, have been delineated with superior accuracy in Rennell's last map, April 1800; and it is to be wished that he would publish a general map of Hindostan on a larger scale than that of 1788, with all the most recent discoveries.

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ISLAND OF CEYLON.

EXTENT AND NAME.—RELIGION.—POPULATION.—MANNERS AND CUSTOMS.—TOWNS.—MANUFACTURES.—CLIMATE.—RIVERS.—MOUNTAINS.—FORESTS.—ZOOLOGY.—MINERALOGY.—PEARL FISHERY.—OTHER ISLES.

EXTENT AND NAME. THOUGH this island be not above a fifth part of the size ascribed to it by the strange exaggeration of the ancients, it still approaches to that of Ireland, being generally supposed to be about 260 British miles in length, by about 150 in breadth; but in the wide continent of Asia, territory is on so large a scale, that what in Europe would constitute a kingdom is here scarcely a province. This isle is the Taprobana, Salice, and Sieledeba of the ancients, the Serendib of the Arabians: in the Hindoo language it is called Lanca; and the people are doubtless of Hindoo origin. Its history is little known. The Hindoos fable that it was conquered by the almighty Rama, who constructed a bridge over the shoals and islands, still called by his name; but the Mahometans style it Adam's Bridge: as, by another absurd alteration, they have called the supposed print of the foot of the god Boodh, on a high mountain, by the name of Adam's Foot. In the reign of Claudius, ambassadors were sent to Rome by a Singalese rajia, raja, or king, whom Pliny, mistaking his title for his name, has called Rachia*. In the trifling treatise on the Brahmans, written by one Palladius, and translated by St. Ambrose, we are told that four kings reigned in Taprobana, of whom one was styled Maharagia, or the great king. The succession and petty wars of these princes would be little important. When the Portuguese seized this island, 1506, the chief monarch was the king of Cotta; but the central province of Candea, or Kandi, afterwards appears as the leading principality. The Portuguese retained possession of the shores, (the inland parts rising to a high table land, bounded by forests and difficult passes,) till about 1660, when they were expelled by the Dutch, between whom and the king of Kandi a war arose 1759 which termin-

* Pliny, vi. 22.

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ated 1766, by the submission of the latter, who surrendered all the coasts, and agreed to deliver yearly a quantity of cinnamon at a low rate*. From the sordid domination of the Dutch, it has recently passed under the more liberal banner of British power; and it is to be hoped that our ingenious countrymen will furnish us with more precise accounts of the formerly Dutch possessions in general, which mercantile jealousy concealed in profound obscurity.

Religion. The religion of Ceylon is the ancient worship of Boodh, whose images appear with short and crisped hair, because it is fabled that he cut it with a golden sword, which produced that effect†. In the Asiatic Researches may be found prints of some antiquities and idols, discovered on the southern and western coasts of Ceylon, among which the image of Boodh is predominant; and an old king called Coutta Raja is sculptured in granite, and celebrated in the Singalese traditions. The worship of Boodh is supposed to have originated in Ceylon: and thence to have spread to ancient Hindostan, to exterior India, Tibet, and even to China and Japan. Such are the traditions in Siam, Pegu, &c. which suppose that Boodh, probably a kind of Confucius or deified philosopher, flourished about 540 years before the Christian era: and as the Boodhis in general shew a prodigious superiority of good sense to the visionary Bramins, their accounts deserve more credit than the idle dreams and millionary chronology of the Pundits. Others however suppose that the worship of Boodh originated in exterior India‡. However this be, there seems no ground to infer that the puerile mythology of the Hindoos was derived from Egypt, though the similarity of the country in respect to annual inundations, and several natural products, occasioned a faint resemblance in some respects, merely because human fears and wishes are the same in similar situations. The great number and variety of heads and arms of the Hindoo idols seem unrivalled by the more sober Egyptians, who had very different modes of expressing power, or beauty: and reason will find more cause to discriminate, than fancy to assimilate the two systems.

Population. There does not yet appear to be any authentic intelligence concerning the population of Ceylon; but as it seems to remain almost in a state of nature, the inhabitants cannot be inferred to be numerous. The hundreds of cities mentioned by ancient writers are now esteemed completely fabulous; nor does there seem to be one place deserving the name of a city, mentioned either in ancient or or modern record. This island is only important in a commercial view, from its celebrated products of cinnamon and gems. The harbour of Trincomali, on the east, is to us of great consequence, because there is none on the eastern coast of Hindostan: and it has even been suggested that in case any revolution, to which all human affairs are subject, should expel us from the continent of Hindostan,

* Wesdin, 429. † As. Res. vi. 453.

‡ There are three chief distinctions between the priests of Boodh and the Bramins; the former may lay down the priesthood; they eat flesh, but will not kill the animal; and they form no cast nor tribe, but are from the mass of the people.

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this island might afford an extensive and grand asylum, where the British name and commerce might be perpetuated.

Manners and Customs. The natives of Ceylon, called Singalese, either from a native or Portuguese term, are not so black as those of Malabar, and have few manners and customs distinct from other Hindoos. It is said that several brothers may have one wife in common, as in Tibet; but the polygamy of males is also allowed*. In general chastity is little esteemed in the oriental countries; and the morality of many nations is so lax in this respect that the intercourse of the sexes is considered as far more indifferent than the use of certain foods. The language is rather peculiar; but some of the natives understand both the Tamulic and that of Malabar.

Towns. The native town Kandi, in the centre of the isle, seems to be of small size and consequence, and probably only distinguished by a palisade and a few temples†. It was taken by the Portuguese in 1590; but no recent traveller appears to have visited this deep recess of sovereign power.

Colombo. The chief town of the Portuguese, Dutch, and English possessions, is Colombo, a handsome place, and well fortified, the residence of the governor is elegant, but only consists of one floor with a balcony to receive the cool air.‡ Ceylon being exposed on all sides to the sea breezes the climate is not so hot as that of Hindostan; far less pestiferous, like the marshy exhalations of Batavia. At Colombo there is a printing press, where the Dutch published religious books in the Tamulic, Malabar, and Singalese languages. The name of Colombo seems indigenous, as well as that of Nigombo, a fortress a few miles to the north of this capital.

The northern parts of Ceylon are cheifly left to the natives, but the town of Jafnapatam, or Jafna, was a Dutch settlement in a detached isle. The grand pearl fishery is conducted in the gulf of Manar, near Condatchey, a miserable place in a sandy district, to which water is brought from Aripoo, a village four miles to the south: the shoals near Rama's bridge supply inexhaustible stores of this valued production.‖

Trincomali. On pursuing the shore towards the east it is mostly guarded by sand-banks, or rocks; but the noble harbour of Trincomali opens at the mouth of the Mowil Ganga, the Ganges of Ptolemy's large map of Taprobana; and was defended by a strong fortress. Batacola is an inferior haven, on the same side of the island.

Matura. But the southern side of Ceylon has been chiefly visited, abounding with gems and other rich productions. Matura was a Dutch factory near the most southern promontory called Dondra, where excellent kinds of cinnamon were collected; and varieties of precious stones abound in the vicinity.** Not far to the west of Matura is Gale, or Galle, near a point so called, a handsome town strongly fortified, on the projecting angle of a rock.††

Manufactures. There is little mention of any manufactures conducted in this island; but the natives seem not unskilled in the

* Wesdin, 435. † Mandelslo, 279, who gives a list of the other towns.
‡ Thunberg, iv. 175. ‖ As. Res. v. 397.
** Thunberg, iv. 195, 231. †† Ib. 194.

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common works in gold and iron. The Dutch ships used to sail from Galle, laden with cinnamon, pepper, and other spices; nor must pearls and precious stones be forgotten among the articles of export. The colombo wood, a bitter in recent use, receives its name from the capital; but its native country or district seems still unknown.

Climate. The climate and seasons correspond in some degree with the adjacent continent; yet the exposure on all sides to the sea renders the air more cool and salubrious. The general aspect of the country somewhat resembles that of southern Hindostan; a high table land, in the centre, being surrounded with low shores, about six or eight leagues in breadth. High mountains, prodigious forests, full of aromatic trees and plants, and many pleasant rivers and streams diversify this country, which by the Hindoos is esteemed a second paradise. The vales are of a rich fat soil; and, when cleared, amazingly fertile in rice, and other useful vegetables.

Rivers. There are five considerable rivers described by Ptolemy; of which the chief is the Mowil Ganga, on which stood Maagramum, the capital in his time, and modern Kandi stands on the same stream, one of the royal palaces being on an isle in that river, where the monarch keeps a treasure of gems; and his officers, like those of exterior India, are decorated with slight chains of gold.

The Phasis of Ptolemy running north is perhaps the stream which passes to the north-west by Ackpol. His western stream of Soana is perhaps that which enters the sea in that direction, near the centre of the isle. The Azanus south-west seems that near the point of Galle; while his Baracus east is the Barokan.

Mountains. The chain, or chains of mountains run north and south the southern part being called Malea by the Greek geographer; a mere native term for a mountain, as Ganga for a river. The northern part is by Ptolemy called Galibe. These mountains seem granitic; and are peculiarly rich in precious stones imbedded in primitive quartz. What the Mahometans have termed Adam's Peak is esteemed the highest; and is in Sanscret called Salmala, Boodh being fabled to have ascended from it to heaven.

Forests. The forests are numerous and large, the haunts of innumerable elephants, like the Gauts of southern Hindostan. An ample account of the botany of this island is given by the skilful Thunberg; one of the most peculiar and precious trees is that producing the best cinnamon, about the thickness of stout paper, of a brownish yellow, and a flavour inclining to sweetness.

Zoology. The elephants of Ceylon are supposed only to yield in beauty to those of Siam, and chiefly frequent the southern part of the island. Buffaloes are also found in a wild state, while the tame are used in rural economy. The wild boars are numerous and extremely fierce: nor is the tiger unknown, but probably not equal in size to those of Bengal. Bears, chacals, and many tribes of deer and monkies, are also natives of Ceylon. The alligator, frequent in the Hindoo rivers, here sometimes reaches the length of eighteen feet. Among a vast variety of elegant birds, the peacock, that rich ornament of the Hindoo forests, swarms in this beautiful island. For

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more ample information the ingenious labours of Pennant may be consulted.*

Mineralogy. Ceylon, opulent in every department of natural history, presents many minerals of uncommon beauty. Not to mention iron, gold, plumbago, &c. Thunberg has given a list of the precious stones, among which are the genuine ruby, sapphire, and topaz; nor are garnets or even rock crystals neglected by the Singalese. The finest rock crystal is that of a violet colour, called amethyst, a trivial stone, but when extremely pure not a little valued from the singularity of the tint. The water sapphire is only a harder kind of the colourless crystal: the yellow and brown are the Scottish Cairngorm stones, here cut for buttons, for which purpose black schorl is also used on mourning apparel. The jacint is of a yellowish brown, somewhat resembling the cinnamon stone; but the last is sometimes of a bright orange. The tourmalins, or transparent schorls, are also numerous in Ceylon; but some are falsely so called, as the red and blue, which are quartz; the green are chrysolite; while the yellow and white, or what are called Muturese diamonds, are pale topazes. Thunberg informs us that the Hindoo term Tourmalin is thus applied to stones of different descriptions; but he does not describe the genuine tourmalin of mineralogists which in Ceylon is generally dark brown or yellowish, while those of other colours come from Brazil and Tyrol. The peridot of the French, which is a bright green stone of rather a soft nature, is found in Arabia, Persia, and India; but it is asserted that Ceylon produces the genuine emerald, which is esteemed peculiar to Peru, while the emerald of the ancients is probably the peridot. That hard spar, called Corundon, used by the Singalese in polishing their precious stones, is found in the Gauts near Cape Comorin. The cat's eye, a kind of girasol, seems peculiar to Ceylon, as the noble or genuine opal is to Hungary.

Pearl Fishery. Nor must the pearl fishery be forgotten which commonly begins on the north-west shore, about the middle of February and continues till about the middle of April, when the south-west monsoon commences.† The village of Condatchey is then crowded with a mixture of thousands of people, of different colours, countries, casts, and occupations; with numerous tents, and huts, and bazars, or sho;s; while the sea presents many boats hastening to the banks, or returning with the expected riches. The divers are chiefly christians, or moslems, who descend from five to ten fathoms, and remain under water about two minutes, each bringing up about a hundred oysters in his net. The species is minutely described in the paper quoted, which seems to confute the opinion of M. De St. Fond that pearls are produced by the perforation of some insect. These precious pearls are on the contrary always formed like the coats of an onion, around a grain of sand, or some other extraneous particle, which serves as a nucleus, the animal covering it with glutinous matter to prevent disagreeable friction; and even those formed in the shell seem produced by similar exertion to cover some rough part, but these are darker and bluer than genuine pearls. The yellow, or gold-coloured

* View of Hindostan, vol. i. † As. Res. v. 394.

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pearl is most esteemed by the natives; and some are of a bright red lustre: but the dull grey, or blackish are of no value.

Other Isles. There are no other isles of any consequence near the coasts of Hindostan. Those called Lacadives and Maldives scarcely merit a particular description, in a work of this general nature, which ought only to embrace the most interesting topics: and the Andaman and Nicobar isles properly belong to exterior India, where a short account of them may be found, after the peninsula of Malacca, to which coast they are the most approximated. It may here suffice to observe that in the Hindoo language *dive* implies an isle; and Ptolemy computes those which mariners saw before they reached Ceylon, that is the Maldives, at more than thirteen hundred.

Maldives. They form as it were an oblong inclosure of small low regular isles, around a clear space of sea, with very shallow water between each. They are governed by a chief called Atoll, and the trade is in cowrie shells, with cocoa nuts and fish.* The language is Singalese; and there are some Mahometans.

Lacadives The Lacadive islands form a more extended group, though only thirty in number. They also trade in cocoa nuts, and fish; and ambergris is often found floating in the vicinity.

* Pennant, i. 51.

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PERSIA.

CHAPTER I.

HISTORICAL GEOGRAPHY.

DIVISIONS.— NAME.— EXTENT.— POPULATION.— PROGRESSIVE GEOGRAPHY.—PROVINCES.—HISTORICAL EPOCHS.—ANCIENT MONUMENTS.—MODERN HISTORY.—EASTERN PERSIA.

Divisions. THE ancient and powerful monarchy of Persia has, during the greater part of last century, been in a most distracted and divided condition; and the inhabitants, formerly renowned for wisdom and benignity, have been degraded, by civil discord, and mutual enmity and distrust, into a temporary debasement, both moral and political. This great empire seems at length, in some degree, to have settled into two divisions, the Eastern and the Western; while the provinces near the Caspian, secured by mountains and fastnesses, have asserted a kind of independence. These circumstances are unfavourable to a just and exact delineation of the present state of the country; but the chief limits, and many of the most important geographical topics, have been inviolably fixed by the hand of nature; and the following description shall embrace modern Persia in general, as it was in the time of Chardin, combined with the most recent and authentic information.

Name The name of Persia spread from the province of *Pars* or *Fars* throughout this mighty empire, in like manner as, among other instances, the appellation of England originated from a small tribe. This name has, however, been little known to the natives, who, in ancient and modern times, have termed their country *Iran;* under which denomination were included all the wide regions to the south and west of the river Oxus, or Gihon, the Amu of the Russians and Tatars; while the countries subject to Persia beyond that celebrated

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river, were, in ancient times, styled *Aniran*. Hence the inscriptions on the ancient Persian coins recently interpreted by two able orientalists, Sacy and Sir William Ouseley, bear "the worshipper of Ormuzd, the excellent Ardeshir, king of the kings of Iran and Aniran, celestially descended from the gods." Sacy supposes that the name *Aniran* simply implies the negative of Iran, or the various subject countries not contained within its limits; and probably what, in more modern times, has been styled *Touran*, which in a wide acceptation may extend to Tatary, or the western part of central Asia, but in a more limited sense means Great and Little Bucharia.

Extent. From the mountains and deserts which, with the river Araba, constitute the eastern frontier towards Hindostan, Persia extends more than 1200 miles in length, to the western mountains of Elwend, and other limits of Asiatic Turkey. From south to north, from the deserts on the Indian sea, in all ages left to the Ichthyophagi, or wild tribes of Arabs who live on fish, to the other deserts near the sea of Aral are about 1000 British miles.

Population. The original population of the mountainous country of Persia appears to have been indigenous, that is no preceding nation can be traced; and in the opinion of all the most learned and skilful inquirers, from Scaliger and Lipsius down to Sir William Jones, this nation is Scythic, or Gothic, and the very source and fountain of all the celebrated Scythian nations. While the southern Scythians of Iran gradually became a settled and civilized people, the barbarous northern tribes spread around the Caspian and Euxine seas; and besides the powerful settlements of the Getæ and Massagetæ, the Gog and Magog of oriental authors, and others on the north and east of the great ridge of mountains called Imaus, or Belur Tag, they detached victorious colonies into the greater part of Europe many centuries before the christian era.*

The ancient Medes and Parthians, in the north of Persia, appear however to have been of Sarmatic, or Slavonic origin, and to have spread from their native regions on the Volga, towards the Caucasian mountains, along which ridge they passed to the south of the Caspian, the ancient site of Media and Parthiene. The grand chain of Caucasus forms a kind of central point of immigration and emigration from the east and west whence the great variety of nations and languages that are traced even in modern times. The late very learned and excellent Sir William Jones, who did honour to his country and century, has repeatedly expressed his opinion that while the Parsi and Zend, or proper and peculiar Persian language, is of the same origin with the Gothic, Greek, and Latin; the Pehlava is Assyrian, or Chaldaic. This testimony rather militates against that of many illustrious classical authors; as we should expect the Pehlavi, or in other words any second grand dialect in this country, to have been Slavonic; but from the inscriptions on the coins of a dynasty, confessedly and peculiarly Persian, which are Pehlavic, it appears that this was merely a more polished dialect, adopted from their western neighbours of Syria; who, from extensive

* See the Author's Dissertation on the Scythians, or Goths, in his Inquiry into the History of Scotland, two vols. 8vo.

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commerce and other advantages, had become more opulent, intelligent, and civilized. This difference between the written language and the colloquial is even now common in many oriental countries; as for instance the Birman empire and Siam: and oriental manners have been perpetually the same. It is probable that the Slavonic language of the Parthians and Medes, though sometimes superior and ruling tribes, was soon lost, as usual, in that of the greater number, and is little to be distinguished from that of the Persian natives. In modern times the Arabs and the Turcomans have ruled in Persia, and the Afgans, probably a Caucasian tribe, in Hindostan, without effecting any change in the native language.

Progressive Geography. The contests of ancient Persia, with Greece and the Greek colonies established in Asia Minor, then within the wide limits of the Persian empire, have rendered the ancient geography of this country not a little luminous. Herodotus, the father of history, was born at Halicarnassus, one of these colonies; and his account of the twenty Satrapies, or great provinces of the Persian empire, in the reign of Darius Hystaspes, or Ghushtasp, has been ably illustrated in a late work of Major Rennell. The present design however only embraces the modern provinces, and limits; and the former may be thus arranged, proceeding from the west towards the north-east after remarking that the limits of the ancient and modern provinces often coincide, as they consist of rivers and ranges of mountains.

Provinces. 1. Georgia, or more properly Gurgustan, in which may be included Daghistan and Shirvan. These may be considered as constituting the Albania of the ancients; a name applied in different quarters to mountainous regions. The ancient Iberia to the west is now chiefly the Imeritia of European Turkey, on the other side of a branch of the Caucasus.

2. Erivan: a large portion of ancient Armenia, between the river Kur, or Cyrus on the north, and the Aras, or Araxes on the south.

3. Aderbijan including Mogan, the Atropatena of the ancients.

4. Ghilan to the east of the last on the Caspian sea, and synonymous with the ancient Gela.

5. To close the list of countries on the Caspian, Mazendran appears encircled on the south by a lofty branch of the Caucasian chain, the seat of the Mardi of antiquity; to the east of which was the noted province of Hyrcania, now Corcan and Dahistan.

6. Returning to the western frontier there occurs Irac Ajemi, chiefly corresponding with the ancient Ecbatana. In the south of this province is Ispahan, the modern capital of Persia.

7. Chosistan extending to the river Tigris; but the capital Bussora, or Basra, after a recent vain attempt of the Arabs, remains subject to the Turks. This province corresponds with the ancient Susiana.*

8. The celebrated province of Fars, Persis, or Persia proper, surrounded with mountains on the north the west the south and on the

* But the name is antiquated. Niebuhr Descr. de l' Arab. 277. Shuster, or Tostar, is now the name of a large province Loristan is in Shuster. To the west in the country of Havisa, the Ahwaz of D'Anville. The tribe Kiab is on the south of Havisa. Ib.

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east separated by a desert from Kerman. Fars contains the beautiful city of Shiraz, with Istakar and the ruins of Persepolis.

9. Kerman, the ancient Carmania.

10. Laristan, a small province on the Persian Gulf to the south-east of Fars, of which some regard it as a part; nor does the subdivision seem to be known in ancient times, though the long ridge of mountains on the south of Fars, and generally about sixty British miles from the Persian Gulf, seem here naturally to indicate a maritime province; which, if the ancient Persians had been addicted to commerce, would have been the seat of great wealth, by intercourse with Arabia, Africa, and India. But this high spirited nation of horsemen and warriors was totally averse from maritime enterprize, either of war or trade, whether from a contempt of the Arabian fish-eaters on their coast; or more probably from particular precepts of Zerdust or Zoroaster, the founder of their religion, as Hyde has explained, which rendered a maritime life incompatible with the practice of their faith. In modern times Ormus and Bussora shew that the Persian Gulf is adapted to extensive commerce, which was indeed carried on here in the reigns of the Arabian chalifs. Mr. Franklin, who in 1786 passed from Abu Shehar, or Busheer, to Shiraz, found the mountains in this southern part extremely precipitous, and the summits covered with snow in the end of March; a circumstance unexpected in southern Persia, and in a latitude nearer the line than Cairo.

11. To the east of Kerman is the large province of Mekran, which extends to the Indian deserts, and is the ancient Gadrustan or Gedrosia. This province has always been unfertile, and full of deserts; and classical geography here presents only one mean town called Pura, probably Borjian on the most western frontier. The extensive sea coast on the Indian ocean, far from being the seat of commerce, scarcely presents one harbour, being almost an uniform line of sterility, inhabited by Arabs, like most of the southern coasts of Persia which are divided by mountains and deserts from the fertile and cultivated land.

12. Segistan, another wide frontier province towards India, was chiefly the Arachosia and Saranga of antiquity; while the province of Paropamisus in the north-east encroached on Candahar, and the modern limits of Hindostan.

13. The grand and terminating division of modern Persia in the north-east is Corasan, bounded by the Gihon or Oxus on the north-east and on the south by the lake of Zeré, or Zurra, the grand Aria Palus of antiquity. The classical provinces comprized within Corasan are in the north Margiana and in the south Aria.

Besides these provinces, and exclusive of Asiatic Turkey on the west the ancient Persian empire comprised Bactriana or Balk, which may be termed a wide and well watered kingdom of between 300 and 400 British miles square; and on the other side of the Oxus, Sogdiana, or the country on the river Sogd, which passes by modern Samarcand.* Nay the fifteenth satrapy of Herodotus comprises the Sacæ and Caspii, pro-

* There is either a prodigious error in Ptolemy, or his Maracanda is in the west of the country of Balk, perhaps the modern Marabad. The Maracanda of Arrian is clearly Samarcand.

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bably the country of Shash, and some other tribes nearer the Caspian sea, for it would be bold to comprise in the Persian domains any part of Scythia beyond the Imaus, or in other words, of the country of the Seres; for Ptolemy's exterior Scythia is a mere strip, and probably only represents the hills and forests on the east side of the Belur Tag. This province of the Sacæ and Caspii adjoined on the west to Corasmia, which belonged to the sixteenth satrapy, and is now the desert place of Kharism, with the small territory of Khiva.

The countries last mentioned form so considerable a part of what is called Independent Tatary, and have in all ages been so intimately connected with Persian history, that some account of them shall be annexed to this article; which joined with that in the Chinese empire, will complete the description of the countries between the dominions of that great state and those of Russia and Persia, so far as the very imperfect materials will allow.

The most recent division of Persia into two kingdoms, and some small independencies, can be weighed with greater accuracy after a short view of its modern history, which will follow the historical epochs and antiquities. But it must not be omitted that the progressive geography of this celebrated country may be traced through Strabo, Pliny, the historians of Alexander, and other classical sources; and afterwards through the Arabian authors Ebn Haukal, Edrisi, Abulfeda, &c. &c. to the modern labours of Chardin, and other intelligent travellers.

Historical Epochs. The chief historical epochs of the Persian empire may be arranged in the following order.

1. The Scythians, or barbarous inhabitants of Persia, according to the account of Justin conquered a great part of Asia, and attacked Egypt about 1500 years before the reign of Ninus the founder of the Assyrian monarchy; that is so far as the faint light of chronology can pretend to determine such remote events, about 3660 years before the Christian era. The Egyptians, a people of Assyrian extract, as the Coptic language seems to evince, were from superior local advantages civilized at a more early period; and their genuine chronology seems to begin about 4000 years before Christ. The venerable historical records contained in the Scriptures attest the early civilization and ancient polity of the Egyptians; but as the Assyrians spread far to the east of Judea, they seem to be silent concerning the Persians, except a satrap or two be implied. The first seat of the Persian monarchy was probably in the north-east on the river Oxus; while the Assyrians possessed the Euphrates and the Tigris, and the south-west of Persia. There is no evidence whatever, from records, remains of antiquity, or any probable induction, that this planet has been inhabited above six or seven thousand years. The invention and progress of the arts, the mythologies and chronologies of all nations, except the Hindoos, indicate this term as the utmost limit; before which, if men had existed, indelible traces of them must have appeared, whereas history can account for every relic that is found. For the great antiquity of the earth there are many evidences; but none for the antiquity of man.

The history of the Assyrian empire begins with Ninus about 2160 years before Christ, who is said to have formed an alliance with the king of Arabia, and, in conjunction with him, to have subdued all Asia,

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except India and Bactriana; that is, according to the ancient knowledge, he subdued Asia Minor and the west of Persia.

2. Zoroaster king of Bactriana is said to have been contemporary with Ninus, and to have invented magic; that is, he was a wise man, who could produce uncommon effects by common causes. But the history of this Persian lawgiver is lost in remote antiquity. The city of Babylon, not far to the south of Bagdad, being the capital of Assyrian power, it is likely that it extended over great part of western Persia: nor is it improbable that what is now called Arabia Deserta was, at so remote a period, a productive country. Nineveh, said to have been founded by Ninus, appears to have stood opposite to Mosul, about 300 British miles to the north of Babylon; but the history of the kingdoms denominated from these two cities is foreign to the present purpose.

3. Cyrus founds what is called the Persian empire, 557 years before the Christian era, and soon after takes Babylon. This great event may be said only to have disclosed the Persians to the civilized nations of the west, for the native Persian histories ascend to Kayumarras, great grandson of Noah, and the ancient traditions chiefly refer to wars against Touran and India, which indicates the primitive eastern position of the people. But these are mingled with improbable fables concerning the foundation of some cities in the west, as Shiraz, Persepolis, &c. while it is impossible, considering the proximity of the Assyrian power, that these cities could have been founded till after Cyrus led the Persians from the north and the east to the south-west.

4. The overthrow of the first Persian empire by Alexander, B. C. 328, followed by the Greek monarchs of Syria, and the Grecian kingdom of Bactriana; of which last an interesting history has been compiled by the learned Bayer. It commenced about 248 years before Christ, and contained several satrapies, among which was Sogdiana. The kings were a first and second Theodotus, who were followed by the usurper Euthydemus, and Menander, in whose reign, or that of his successor Eucratides, the Greeks under Demetrius are said to have subdued a great part of India; and Apollodorus, the Bactrian historian, asserts that Eucratides possessed one thousand cities. He was succeeded by his son, who seems to have been of the same name; and a coin of one of these princes has been published by our learned author, who advances many arguments to prove that the Greeks of Bactriana imparted the first lineaments of science to the Hindoos.

5. The Parthian empire, which likewise began about 248 years before Christ. This was a mere revival of the Persian empire under a new name.

6. Ardshur, or Artaxerxes, about the year 220 of the Christian era, restores the Persian line of kings; this dynasty being called Sassanides: and the Greek legends of the Parthian coins are followed by Pehlavic, recently explained by Sacy and Ouseley.

7. The conquest of Persia by the Mahometans, A. D. 636. As the position of the state often determines its destiny, this Arabian empire may be assimilated with the Assyrian of antiquity. The native kingdom was revived in Corasan, A. D. 820; and after several revolutions resumed its former situation.

8. The accession of the house of Bouiah, A. D. 934.

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9. That of the house of Sefi or Sofi, A. D. 1501, whence the title of Sofis of Persia; for it is unnecessary here to repeat the conquests of Zingis and Timur, and the subsequent divisions and revolutions.

10. The reign of Shah Abas, surnamed the Great, A. D. 1586.

11. The brief conquest by the Afgans, 1722; and consequent extinction of the house of Sefi, and elevation of Nadir, surnamed Thamas Kouli Khan, A. D. 1736. This ferocious chief was born in Corasan; and after a reign of eleven years was slain 20th of June, 1747, near the city of Meshid, in the same country.

Ancient Monuments. Some account of the modern history and state of Persia shall be given, after a very brief view of the ancient monuments. Of these the ruins of Persepolis are the most celebrated and remarkable; and have been described by many travellers, from Chardin to Niebuhr and Franklin. They are situated at the bottom of a mountain, fronting south-west about forty miles to the north of Shiraz. Mr. Franklin's route from Shiraz to the ruins was by the village of Zarkan, eight fursengs, thence to the river Bund Ameer, which Mr. Niebuhr supposes to be the ancient Araxes, and to the ruins, the last stage being five fursengs.* They command a view of the extensive plain of Merdasht, and the mountain of Rehumut encircles them, in the form of an amphitheatre: the nature of these ruins may be seen in the numerous plates which have been published; and it would be an idle attempt to describe in few words the grand portals, halls, and columns, and numerous relievos and devices. There are many inscriptions in a character not yet explained; but which Niebuhr seems to have represented with the greatest accuracy. The letters somewhat resemble nails, disposed in various directions, in which singularity they approach to what are called the Helsing runes of Scandinavia; but the form and disposition seem more complex, and perhaps a clue might arise from comparing the Uchen character of Tibet. Behind the ruin to the north there is a curious apartment cut out in the rock; and a subterranean passage, which seems to extend a considerable way. The front of the palace is 600 paces north to south, and 390 east to west, and the mountain behind has been deeply smoothed, to make way for the foundation. About three miles and a half to the north-east of these ruins is the tomb of Rustan, the ancient Persian hero.

Several small edifices and caverns, of similar architecture, are found in various parts of Persia, all which undoubtedly preceded the Mahometan conquest, but it is difficult to ascertain their precise era. It is however generally supposed that they belong to the first race of Persian kings, successors of Cyrus, for the characters do not resemble those on the coins of the Sassanidæ, and the Parthian monarchs seem to have employed Greek artists. The bricks recently brought to England and France from the ruins of ancient Babylon are impressed with inscriptions in the same character with the Persepolitan; and as there is no ancient evidence that the Persians erected any edifices at Babylon, there seems reason to conclude that these letters are of Assyrian origin,

* He computes the furseng at four English miles, but it seems little to exceed three; still Istakar is placed in the maps too near to Shiraz, and too far from the mountains close to which it lies.

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and imported into Persia with other features of early civilization. But the religious worship seems in all ages to have been wholly different, the Persians worshipping fire as a pure symbol of the divinity, and entertaining a rooted aversion to the numerous idols of their western neighbours; and in the destruction of the Egyptian temples and idols by Cambyses, there is no doubt that religious zeal was a great motive.

In many parts of Persia there must remain several curious monuments of antiquity, which might well excite the curiosity of the learned traveller to investigate this interesting country. The design of the present work rather requires some information concerning the modern state of this once powerful monarchy, which shall be chiefly derived from Mr. Franklin's view of the transactions in Persia from the death of Nadir Shah, 1747, to 1788; combined with the accounts of Gmelin, who by command of the empress of Russia inspected the northern provinces and Ghilan; and those of Pallas, in his last travels during the years 1793 and 1794.

Modern History. Nadir Shah was succeeded by his nephew Adil, who, after a transitory reign, was followed by his brother Ibrahim. Meanwhile Timur Shah reigned in Cabul, Candahar, and the Persian provinces adjacent to Hindostan; and availing himself of the confusion in Persia, he besieged Meshid, which he took after a blockade of eight months.

This event was followed by such anarchy and confusion, that it seems impossible to settle the chronology of the infinite crimes which were committed during the contests of numerous chiefs, which desolated almost every province from Gombroon to Russia, leaving indelible marks of destruction throughout the kingdom, and changing even the very character of the people, whose prudence is degenerated into cunning, and their courage into ferocity.

At length the government of western Persia was happily settled for a considerable space of time in the person of Kerim Khan, who however never assumed the title of Shah, but was contented with that of Vakeel or Regent. As he died in the thirtieth year of his reign, 1779, it must have commenced in 1749; but at first he had competitors to encounter, and the reigns of his predecessors sometimes did not exceed a month or two, their number being computed at not less than eight.* This great and mild prince had been a favourite officer of Nadir; and at the time of that tyrant's death was in the southern provinces, where he assumed the power at Shiraz, and was warmly supported by the inhabitants of that city, who had observed and revered his justice and beneficence. In reward, he embellished this city and its environs with noble palaces, gardens, and mosks, improved the highways, and rebuilt the caravanseras. His reign was established by the sword, but was afterwards unsullied by blood; and its chief peril arose from extreme mercy. His charity to the poor, and his attempt to restore the commerce of the country, are gratefully remembered by natives and Europeans. The Turkish emperor, and the Hindoo sultan Hyder Ali, acknowledged Ke-

* Dr. Pallas, ii. 262. says that Kerim died in his eighty-third year, after an *uncontested* reign of sixteen years only.

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rim as sovereign of Persia. Yet he lost the flower of his army before Bussora, 1778; and though he died in his eightieth year, his fate is supposed to have been hastened by this misfortune. The people of Shiraz embalm his memory with benedictions and tears of gratitude.

Another unhappy period of confusion followed the death of Kerim: his relation Zikea or Saki seized the government, which was contested by another kinsman, Ali Murad. The detestable cruelty of Zikea led to his own destruction, and he was massacred by his troops at Yezdekast, about six days journey north of Shiraz, on the road to Ispahan.

Abul Futtah was then proclaimed king by the soldiers, and to him Ali Murad submitted; but Sadick, brother of Kerim, opposed his nephew's elevation; for Abul Futtah was the son of Kerim, and had been confined by Zikea without further injury. Sadick marched from Bussora at the head of an army, dethroned the young monarch, and after depriving him of his sight, ordered him into strict confinement.

Ali Murad, then at Ispahan, rebelled against this usurper, and with an army of twelve thousand men besieged and took Shiraz, and put Sadick to death, with three of his children. A son Jaafar was appointed by the new king governor of Kom, a city or province to the north-west of Ispahan; for in the most recent Persian geography a province often assumes the name of the chief city.

Ali Murad was now regareded as peaceable possessor of the Persian throne; but an eunuch called Aga-Mamet, or Akau, had, since the death of Kerim, assumed an independent sway in the Caspian province of Mazendran. When advancing against him, Ali Murad fell from his horse, and instantly expired. Jaafar having assumed the sceptre, was defeated by Akau at Yezdekast, and retired to Shiraz.

In 1785 the governor of Kazerun rebelled against Jaafar, but was defeated; and in October 1787 Jaafar returned to Shiraz, from an expedition to the north, which was ineffectual. At the close of Mr. Franklin's narration, Akau held possession of the province of Mazendran,* with the cities of Tebriz and Hamadan, vnd even that of Ispahan in the south, so that his sway might be said to extend over one half of western Persia, while Jaafar possessed Shiraz, or the province of Fars, with those of Beabun, and Shuster in the west, perhaps the Kiab and Tostar of the maps, and he received tribute from Kerman and Lar or Laristan, and Abusheher or Bushcer in the south, and the city of Yezd in the north. The wide province of Mekran is probably, with Segistan, tributary to the kings of Candahar. The armies of Jaafar and Akau did not each exceed twenty thousand men; and they were considered as the sole candidates for the throne of western Persia.

From the information of Dr. Pallas, it appears that in 1792 Akau, whom he calls Aga Mamet, again collected an army, and conquered the cities of Kasbin and Tekheran or Tahiran; which, though at the foot of the mountains of Mazendran, seem to have unaccountably resisted his power. Having reinforced his troops with those of Ali, khan of Hamsa, a prince who had asserted a kind of independency since the death of Ali Murad, he advanced against Jaafar, who retreated to

* Mr. Franklin adds Ghilan; but from the accounts of Pallas and Gmelin this appears to be a mistake.

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Shiraz, where he perished in an insurrection, and his son Lutuf fled to the south.

Akau had now no rival, except Hidaet, khan of Ghilan, who was forced to fly from Rasht, his place of residence, but was killed near the port of Sinsili. In consequence of these events Akau became monarch of all western Persia; and being an eunuch, had nominated for his successor his nephew Baba Serdar. In 1794 Akau, the sovereign of western Persia, was about fifty-five years of age, of a tall stature, but disagreeable countenance; and said to possess uncommon art, mingled with much avarice and ambition. He was the son of a Bek, or inferior nobleman, who, after the death of Nadir, seized Mazendran, and assumed the title of khan, and the yet higher style of serdar, only borne by the most powerful khans. The father of Akau reigned twelve years, till in 1762 he was conquered and slain by Kerim, after a war of some years; and his son Akau was deprived of his manhood by command of the conqueror.

The uninteresting history of Ghilan, and the adjacent provinces to the west may be traced in Gmelin and Pallas.

Eastern Persia. Having thus, as briefly as possible, discussed the recent history of western Persia, the eastern half yet remains, being unhappily separated in a great degree by high ridges of mountains and sandy deserts, a circumstance which has been repeatedly productive of great disasters to this wide empire. If a more central seat of government had been originally selected, for example near the sea of Zurra, or Arian lake of antiquity, it is probable that industry might have effected much in fertilizing the central districts; and the power of the ancient Assyrians, or of the Arabian chalifs, could not have effected such sudden conquests of the empire. But during its utmost extent, to the Mediterranean sea, the western provinces had been selected as the seats of empire, which became fixed by opinion and prejudice.

This natural separation has occasioned great obscurity in the ancient history of Persia, the eastern half remaining a distinct and independent country, of the same general name with the western, but with limits and history totally distinct. The series of events after the Mahometan conquest; the kingdoms of Corasan, Samarcand, and Ghizni; and in recent times that of Candahar; may lead to safe conclusions concerning a similar division in remote periods.

The best materials concerning the kingdom of Candahar seem to be those collected by Rennell; and they are, if possible, yet more scanty than those concerning the western half. Ahmed Abdalla, first king of Candahar, was originally the chief of an Afgan tribe, conquered by Nadir Shah, on whose death he suddenly appeared among his former subjects, and soon erected a considerable kingdom in the eastern part of Persia, including most of the Indian provinces ceded by the Mogul to Nadir. He established his capital at Cabul, at a secure distance behind the mountains of Hindoo Koh; but the deplorable anarchy of western Persia formed a sufficient security in that quarter.

Ahmed died about the year 1773, and was succeeded by Timur, who continued to reside at Cabul; but the monarchy has been styled that of Candahar from a central province. The successor of Timur was

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Zemaun, who probably still rules this extensive country, which has happily been free from the intestine commotions which have desolated western Persia. Since the great battle of Panniput, fought by Ahmed Abdalla against the Marattas 1761, the kingdom of Candahar seems to have remained in a pacific state, and the government is of applauded lenity.

The furthest extent of this monarchy on the east comprises Cashmir, which was probably subdued about 1754*. In the west, according to the opinion of Rennell†, it extends to the vicinity of the city of Tershiz, or Turshiz, in the same line of longitude with Medshid, a length of about 900 British miles. The province of Sindi at the mouth of the Indus, is also subject to Zemaun, with the western part of Moultan; but the remainder on the east bank of that river, and the wide and fertile province of Lahore, are possessed by the Seiks a warlike nation. The other provinces are Kuttore, Cabul, Candahar, and within the Persian boundary Segistan, and probably Mekran, with the eastern part of Corasan, and the province of Gaur, the medial breadth being probably about 500 miles. The remainder of Balk and Great Bucharia belong to Independent Tatary. The chief subjects of Zemaun are the Afgans, or people of the mountains between Persia and Hindostan, who may be considered as the founders of the empire; the others are Hindoos, Persians, and a few Tatars. If western Persia continue united, it is probable that a violent contest may arise between the two sovereignties.

* Forster, ii. 14. † Page 152.

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CHAPTER II.

POLITICAL GEOGRAPHY.

RELIGION.—GOVERNMENT.—POPULATION.—ARMY.—NAVY.—REVENUES.—POLITICAL IMPORTANCE AND RELATIONS.

RELIGION. THE religion of Persia is well known to be the Mahometan, which was introduced by the sword, and has been followed by its usual effects, the destruction and depopulation of the country. Yet the Persians adopt a milder system of this creed than is followed by the Turks and Arabs. Their native good sense, and benignity of manners led them to reject several absurdities, whence they are regarded by the other Mahometans as heretics, and are termed *Chias*, while the pretended true believers usurp the name of *Sunnis*. Chardin has employed a whole volume in describing the Persian system of Mahometanism; and to his work the curious reader is referred*.

Of the Parsees, or ancient worshippers of fire, there seem to be no remains in Persia, except perhaps a few visiters of the fiery eruptions of naphtha near Baku, on the western shores of the Caspian†. These innocent idolaters have been almost extirpated by Mahometan fanaticism, which has propagated every scandal that malice could invent, representing them as devourers of children, and familiar with other atrocities. Mr. Hanway informs us that these Guebers, or infidels, particularly worship the everlasting fire near Baku, an emblem of Ormuzd, or the supreme ineffable Creator; while the evil principle believed to have sprung from matter was styled Ahriman‡. But the chief worshippers of the fire of Baku come from Hindostan, to which the Parsees retreated when Abas expelled them from his empire; and they still abound near Bombay, where their singular mode of sepulture excites attention, as they expose their dead in inclosed areas to be devoured by birds of prey, a custom which has been propagated to some other oriental nations. Mr. Hanway says that there were still some worshippers of fire at a place thence styled Gueberabad, near Ispahan.

The priests of the Mahometan religion, or Mullas, are in Persia often styled *Akonds*, which signifies readers; and they not only preach

* Tome vii. Edit. 1711, 12mo, 10 vol. This edition is inconvenient in size, as the plates are more fit for a folio; and it is besides not so complete as the last quarto edition in four volumes, Amst. 1735.

† Gmelin in the Decouvertes Russes. Berne 1779, six vols. 8vo, tome ii. 19.

‡ Travels, i. 263.

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in the mosks, but are often schoolmasters*. The Pechnamas are superior Mullas, or Vicars of the Imams†. The Fakirs and Calendars are wandering monks, or rather sturdy beggars, who, under the pretext of religion, compel the people to maintain them in idleness. But they do not appear in such crowds as the Goseins and Fakirs of Hindostan, upon their solemn pilgrimages to the chief temples, and other sacred places.

Government. The Government of Persia, like that of all other oriental states, appears to have been always despotic; and national councils seem only to have been known among the barbarous nations of central Asia, and abandoned when their sovereigns had conquered the southern and civilized nations; as, finding no such forms established, they did not perceive any advantage in their introduction. The government of eastern Persia, or the kingdom of Candahar, is represented as mild; and it is to be hoped that of western Persia, when firmly established, will assume the same character. The state of the people seems to be deplorable, being subject to the arbitrary power and extortions of the numerous Khans or chiefs, an appellation introduced by the Tatars, the Persian being it is believed Mirza, which is now addressed to every gentleman. These Khans are sometimes governors of provinces, sometimes only possessors of small districts, and pretend to hereditary succession, though liable to be forfeited or put to death by the arbitrary mandate of the sovereign. The great Khans are sometimes styled Begierbegs, or lords of lords; and in time of war Serdars, or generals. Those who command cities are commonly styled Darogas or governors.‡

Population. The present state of the population of Persia cannot be justly estimated, but it perhaps little exceeds that of Asiatic Turkey, which has been computed at ten millions. Of these perhaps six millions may belong to western Persia; while the other four contribute towards the population of the kingdom of Candahar.

Army. Though Mr. Franklin have supposed that the rival kings in western Persia could not muster more than thenty thousand men each, yet the account of Pallas implies that Aga Mamet raised an army of seventy thousand. But supposing western Persia united, and somewhat reinstated in prosperity, it is not probable that the army could exceed 100,000 effective men, which may probably be the amount of that of Candahar.

Navy. From some particular precepts in the laws of Zoroaster, which it was impossible to observe at sea, the ancient Persians never were a maritime people, though they commanded an ample gulf with the mouths of the Euphrates and the Tigris. The king of kings ordered Phœnician vessels to be used on maritime expeditions: and though the Arabian Chalifs of Bagdad opened an extensive commerce at Bussora, yet the Persians themselves seem in all ages to have been little addicted to traffic. The commerce on the Indian ocean, as well

* Chardin, x. 79.

† The chief prelate is styled Sheik al Sellaum, or head of the faith: also Sader Cassa, or High Priest; and sometimes Navab, or Vicar (of the Prophet). Sanson, 20.

‡ Chardin, vi. 41.

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as on the Caspian sea, has been always chiefly conducted by the Armenians, a most industrious and respectable people. Chardin, himself an opulent merchant, affects to believe that commerce is highly honourable in the east; yet he confesses that the Mahometan religion is averse to trade, from the interdiction of usury, and several precepts of more minute observance.* Hence in Turkey the Christians and Jews are the chief merchants; and in Persia the Armenian Christians, and the Hindoos. Hence the commerce of this country, so advantageously situated, has always been in the hands of strangers; while the natives, with feudal pride, attend to their horses and the chace, and lead what is called the life of a gentleman, neither improving their own property nor the country in general. Scarcely one Persian vessel therefore has in any age navigated any sea; and the very name of a warlike navy seems unknown: in which respect they are far inferior even to the Turks, whose establishment in Europe has insensibly introduced many practices of the unbelievers.†

Revenues. The actual revenues of Persia it is impossible to estimate; but the ruinous state of the country must render it unproductive. The Turkish revenue has been computed at seven millions sterling; and it may perhaps be conjectured with some shew of probability that the monarch of Candahar may draw from his various and extensive provinces about three millions sterling; while western Persia scarcely supplies two millions. Chardin‡ says that the ancient revenue consisted partly in contributions in kind; Kurdistan, for instance, furnishing butter, while Georgia supplied female slaves; partly from the royal domains, with a third of metals, precious stones, and pearls; and a few duties and taxes. The whole revenue was by some estimated at 700,000 tomans,‖ or about thirty-two millions of French livres.

Political Importance and Relations. The political importance and relations of Persia are now greatly restricted. Were the western part united under one sovereign, it might lend effectual assistance to the Russians in any design against the Turks, and might probably be rewarded with the countries as far as the Euphrates. But in its recent distracted state, Persia has been little formidable even to the declining power of Turkey; and the Russians seem to entertain no desire of extending their conquests over the mountainous Caspian provinces, which Peter the Great once held and abandoned, as they would require more garrisons than the revenue could pay. So that Persia seems secure on the side of Russia, as well as on that of Turkey and Arabia; this unhappy security being in fact one grand cause of the civil anarchy.

Eastern Persia, or the kingdom of Candahar, appears to have little to apprehend from the Seiks on the other side of the Indus; and the

* iv. 265.

† The missionary Sanson, *Voyage de Perse*, Paris 1695, page 108, tells us that the Persians so much abhor navigation that they term all seamen *Navadi*, that is to say, Atheists.

‡ vi. 133.

‖ The toman is computed at about 3l. 7s. being rather more than equal to two gold mohurs, a gold coin of Hindostan, worth about thirty-two shillings. Chardin computes the toman at forty-five livres of his time.

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Uzbek Khans of Balk, Bucharia, and Kharism, are disunited and little formidable, though they command a warlike people. Is is therefore more probable that these countries may be vanquished by the kings of Candahar, than that any danger should arise from the Uzbeks. A contest may probably happen between eastern and western Persia; but even if united under one sovereign, it would be long before this country could resume her rank among powerful nations. The only interfering interests of the king of Candahar, and the British settlements in Hindostan, seem to authorise the idea that an alliance would be advantageous to both, in respect to any danger from the native powers; but if Candahar were assailed from the north or west, the British assistance would be remote, and of doubtful consequence. Were Candahar inimical, the assistance of the Uzbeks might be of more importance to us than that of Western Persia.

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CHAPTER III.

CIVIL GEOGRAPHY.

MANNERS AND CUSTOMS.— LANGUAGE.— LITERATURE.— EDUCATION.—CITIES.—MANUFACTURES AND COMMERCE.

MANNERS AND CUSTOMS. THE manners and customs of the Persians, in the seventeenth century, have been so amply detailed by Chardin, Thevenot, Sanson, and other travellers, that the theme has become trivial, and full of unnecessary repetition. One of the most curious pictures is contained in a French work called *Les Beautes de la Perse*, in which the private life and debaucheries of the reigning Sefi are described.*

More modern ideas of Persian manners may be derived from the travels of Gmelin in Ghilan.† The Persians still pride themselves in universal politeness, and are hospitable, not however without the expectation of presents in return. They seem to consider themselves as more wise and sagacious than other nations, yet are passionate; and the recent commotions have imparted a taint of cruelty to the national character.‡ Of a sanguine temperament, both rich and poor are generally gay; and immoderate mirth will succeed the most violent quarrels. They are extremely attached to the fair sex, and not averse to wine. The general complexion is fair, somewhat tinged with olive; but those in the south about Shiraz, of Candahar, and the provinces towards India, are of a dark brown. They are commonly fat, with black hair, high forehead, aquiline nose, full cheeks, and a large chin, the form of the countenance being frequently oval. According to our traveller a Persian beauty is most esteemed when of middle stature, with long black hair, black eyes and eye brows, long eye lashes, fair complexion, with very little red, small nose, mouth, and chin, white teeth, long neck, breast not full, small feet and hands, slender shape, and skin extremely smooth. In the purchase of

* By Deslandes, Paris 1673, 4to. page 38.

† *Histoire des Decouvertes faites par divers savans Voyageurs dans plusieurs contrees de la Russie et de la Perse.* Six vols. 8vo. Berne 1779—1787. By a singular typographial negligence the running title of tomes iii. iv. of this interesting publication bear *Voyage en Perse*, while that title should cease at page 93 of tome iii: the remainder of that, and the next volume, relating solely to the southern parts of Russia, and the north of the Caspian, the Kalmucs, Bashkirs, and Uralian mountains! This is perhaps one of the strangest errors in the whole circle of bibliography.

‡ Decouv. Russ. ii. 276.

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Georgian and Circassian slaves it is probable that these marks are as familiar as those of a beautiful horse among our jockies. The men are generally strong and robust, and inclined to martial exercises, but they are particularly subject to disorders of the eyes. They generally shave the head, and wear high crimson bonnets; but the beard is sacred, and tended with great care. They often wear three or four light dresses, one above the other, fastened with a belt and sash; and they are fond of large cloaks of thick cloth. The women wrap around their heads pieces of silk of different colours; and their robes are rather shorter than those of the men, but there is an unpleasant similarity in other respects. The Persians eat twice or thrice a day, dining about noon, but the chief repast is the supper, as with the ancient Greeks and Romans. The most usual dish is boiled rice variously prepared; and their manner of eating is disgusting to European delicacy. The meat is boiled to excess, and the meal is enlarged with pot herbs, roots, and fruits, cakes, hard eggs, and above all sweatmeats, of which they are extremely fond: but they speak little, and the repast never exceeds an hour. They are remarkable for cleanliness, both in their persons and habitations; and the vulgar are given to insult strangers, whom they consider as impure.

Circumcision is performed by a surgeon, sometimes within ten days after the birth, and at others ten years; but that of girls is unknown, and confined to the Arabs. Marriages are conducted by female mediation; and the pomp and ceremonies somewhat resemble the Russsian. Polygamy is allowed; but the first married is the chief wife. Burials are conducted with little splendor, and the day of death is commonly that of sepulture. Yet the tombs of the rich are often grand, as are the Cenotaphs of the twelve Imams, or Vicars of the Prophet, regarded by the Chias as his only lawful successors. They believe that a particular angel is the sole author of death, by the special command of God: hence suicide is very rare, and duels absolutely unknown.

Language. The language of Persia is perhaps the most celebrated of all the oriental tongues, for strength, beauty, and melody. While the Turkish is harsh and meagre, being essentially the same with that of the Turcomans of Zagathay, or Bucharia (a dialect of the Tataric mingled with Scythian or Gothic terms), the Arabic is, on the contrary, esteemed one of the most opulent: but the numerous synonymes are often mere epithets, as man-destroyer for sword, &c. in which respect the poetical rules of the Edda shew that the Icelandic vied with the Arabic. The latter is however a harsh and guttural speech; whence the Persian is preferred in poetry and elegant composition. The excellent work of Sir William Jones on oriental poetry discloses part of the treasures to be found in this language.

Literature. In general the Persian literature approaches nearer to the European, in solid good sense, and clearness of thought and expression, than that of any other Asiatic nation; as the language itself has been long known to bear a strong affinity to the German, though softened by the long usage of a polished people. Yet even in the Persian the metaphors are far too frequent and violent; and there is too much alloy to bear the classical touchstone of Greece or Rome.

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The more ancient monuments of Persian literature unhappily perished when the Mahometan fanatics conquered the country in the seventh century, though perhaps Bucharia or Tibet might, if diligently explored, still supply some relics. One of the oldest remains is the famous Shah Nama, or history of kings, a long heroic poem of Ferdusi. Sadi, an excellent and entertaining moralist, writes in prose mingled with verse, like several of the Icelandic Sagas, not to mention some early Grecian and Roman models; and it is to be regretted that more of his works are not translated.

Hafiz is the Anacreon of the east, and his tomb is venerated in the vicinity of Shiraz, being itself the chosen shrine of parties of pleasure, who proceed thither to enjoy the delicious situation, and offer libations of the rich Shirazian wine to the memory of their favourite bard, a splendid copy of whose works is chained to his monument. But the sciences in general are little cultivated by the Persians, who are lost in abject superstition, and fond believers in astrology, a proud sophistry which connects the little brief destiny of man with the vast rotation of innumerable suns and worlds.

Education. The educations of the modern Persians is chiefly military: and their gross flatteries, and obliquity of expression, evince that they have totally forgotten the noble system of their ancestors, who in the first place taught their children to speak truth. This simple precept, when duly considered, will be found to lead to infinite consequences, as there is not only a strict connection between truth of expression, and morality of conduct; but falsehood virtually lessens the mental powers, and necessarily produces misconception, thus impairing the judgment, and contaminating the very source of pure morality.

Cities. Ispahan. The capital city of modern Persia is Ispahan, of which an ample description has been given by Chardin, so prolix indeed as to fill a complete volume of his travels.* Including the suburbs he computes its circuit at about twenty-four miles, and the inhabitants, by the smallest computation, at 600,000, the supposed number in modern London. It stands on the small river Zenderud, which rises in the mountains of Yaiabat, three days journey towards the north; but Abas the Great, at a prodigious expense pierced some mountains about thirty leagues from Ispahan, and introduced another stream, so that the Zenderud was as large during the spring as the Seine at Paris in the winter; for in that season the melting of the snows, in the high range of mountains, greatly swelled the river. Chardin does not inform us in what direction these mountains lie, and his whole account is sufficiently confused; nor must it be concealed that this honest merchant is singularly deficient in natural geography and history. He adds, that the walls of Ispahan were of earth, and ill repaired, with eight gates which could not be shut, and the streets narrow, devious, and badly paved. But the royal square, and its grand market, the palace of the Sefi, and those of the grandees, the mosks, the public baths, and other edifices, were often splendid. The suburb of Julfa, or Yulfa, was very large, and possessed by the Armenians, whose ceme-

* Tome viii.

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tery was near the mountains of Ispahan, called Kou Sofa, or a mountain in the form of a terrace, and also Tag Rustan, the hill or throne of Rustan. This capital does not appear to be in the size of any ancient city, though D'Anville insinuate that it is the Aspadana of Ptolemy, which he places in Persis, and the position somewhat coincides; but the radical fault of D'Anville's ancient geography is his implicit trust in the resemblance of names, and his inattention to the revolutions of modern history, and the epochs of the foundation of modern cities; as for instance, he finds Bergen in Norway, built A. D 1070, in Pliny's natural history. The environs of Ispahan are pleasant, and, like most other Persian towns and cities, diversified by the neighbourhood of mountains. This capital was greatly reduced, insomuch that a Persian merchant asserted to Mr. Hanway that not above five thousand houses were inhabited, having been taken and plundered by the Afgans in 1722, who were afterwards repelled to their eastern mountains by Nadir.

Shiraz. The second city, at least in fame, is Shiraz, which has been recently visited and described by Mr. Franklin. This capital of Farsistan, or Persis, is situated in a fertile valley, about twenty-six miles in length, and twelve in breadth, bounded on all sides by lofty mountains: the circuit of the city is about four miles, surrounded with a wall twenty-five feet high, and ten thick, with round towers at the distance of eighty paces. The citadel is built of brick; and before it is a great square, with a park of miserable artillery. The mosk of the late Kerim is splendid but unfinished; and the modern Persians seem to excel in painting blue and gold in a bright and durable manner. The tomb of Hafiz is on the north-east side, about two miles distant from the walls, and at the foot of the mountains, in the same direction, is the tomb of Sadi, with a remarkable channel for water hollowed in the rock. Many summer houses with gardens, in the vicinity of Shiraz, were built by the late regent Kerim, the plantations being avenues of cypress and sycamore, leading to parterres of flowers, and refreshed with fountains of stone. The police of this city is strictly observed, as it is said to be through the towns of Persia. The neighbouring fields are fertile in rice, wheat, and barley, the harvest beginning in May, and ending in the middle of July. Provisions are cheap, and the mutton excellent. The famous horses of Fars now yield greatly to those of Dush Tistan, a province to the south-west. At Shiraz there is a glass manufactory; but woolen goods and silks are brought from Yezd and Kerman, copper from Tauriz, sword blades from Kom. Abu Shehar, or Busheer, supplies Indian articles. The climate of this celebrated city is delicious, particularly in the spring, when numerous flowers perfume the air; and the Boolbul, or oriental nightingale, the goldfinch, linnet, and other warblers, delight the ear.*

Having thus briefly described the two most celebrated cities, the others shall be mentioned in a geopraphical progress from the north, beginning with those of western Persia.

Tefliz. Teffliz, the capital of Georgia, has been described and delineated by Tournefort, who says that it is a large and populous

* Franklin, *passim*.

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town, but meanly built, rising from the river Kur along the side of a hill.* There are fine springs of hot water, a favourite resort of the inhabitants. The chief trade is in furs, sent to Turkey and the south of Persia. The present circuit is about two English miles, and it is supposed to contain 20,000 inhabitants, more than half being Armenians.† It must not be forgotten that during the late confusion in Persia, Georgia has effected at least a temporary independence, supported by Russia; so that the dominion of prince Heraclius is only nominally included within the Persian boundary.

DERBENT. Derbent was formerly a place of noted strength on the Caspian sea, but was taken by Peter the Great of Russia, and afterwards by Catherine II in 1780. Gmelin visited this city a few years before, and describes it as situated on the side of a mountain, extending almost to the sea, where to the west an ancient wall with towers appears to have passed to the Euxine. It was governed by a Persian khan, and in his absence by a naip, or lieutenant-governor. The shores are unfit for anchorage, so that there is little commerce, except inland with Ghilan, to which saffron, which was greatly cultivated, was exported. The gardens near the town are productive of excellent grapes, and most kinds of European fruits. In the same region, to the south, is the province of Shirvan, with the towns of Shamaki and Baku. Kuva is a small town to the south of Derbent, but was the residence of a khan.

ERIVAN. Westward, on the Turkish frontier, stands the city of Erivan, of considerable extent, and the capital of Persian Armenia, but the houses are meanly built, like most of those in Persia.‡ The castle and other fortifications are mean, and incapable of serious defence. Provisions are plentiful, and good wine is produced in the neighbourhood. After repeated contests with the Turks, the Persians have remained masters of Erivan since 1635. Not far to the south-west is the celebrated Armenian monastery of the Three Churches: and the noted mount Ararat, which may be regarded as a kind of frontier between the Turkish and Persian dominions, rises about thirty miles to the south of Erivan.

TEBRIZ. The province of Aderbijan contains few places of note except Tebriz, or Tauriz, a considerable city, which was however greatly injured by an earthquake towards the beginning of the last century. The bazars or market places, and other public edifices, are grand and spacious; and it is said that the great square has held thirty thousand men drawn up in order of battle. Chardin computes the inhabitants at half a million; but in that age such calculations were generally exaggerated.‖ In the neighbourhood there are quarries of white marble; and there was a mine of gold, now abandoned; but copper is still wrought. Being situated on the west side of the great Caucasian mass of mountains, on which the snow remains for nine months of the year,

* ii. 235. † Ellis Memoir. p. 49.

‡ Tournefort, ii. 255.

‖ Chardin, ii. 317, who considers Tauriz as the second city in Persia in population, and all other respects. Till the sixteenth century it was the capital and residence of the kings, afterwards transferred to Casbin.

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the climate is extremely cold, but dry and healthy. Ardebil and Urmia, in the same province, are little memorable, except that the latter gives name to a considerable lake.

Rasht. The Caspian provinces of Ghilan and Mazendran present their capitals, Rasht and Sari. The former, by Mr. Gmelin's account, though the residence of an independent khan, has neither walls nor gates, but is the seat of considerable commerce, and the number of houses may amount to two thousand. The palace of the khan was composed of several large pavilions, arranged in the form of a square, and communicating with each other by handsome galleries. In the midst was a garden with fountains, and behind was the haram with another garden; the apartments being richly furnished with tapestry, mirrors, and other elegant articles. Rasht is the staple of the silk which is produced in great abundance in this province. Sari, the residence of the khans of Mazendran, is of small account, when compared with Aschraff, a favourite residence of Abas the Great, described in glowing colours by Gmelin, who, however, adds that it had recently fallen into great decay; the splendid palaces and gardens having almost become ruinous, since the commotions that followed the death of Nadir. Astrabad, at the south-east extremity of the Caspian sea, has for a long time affected independence, though the people have suffered greatly in the attempts to reduce them. The situation is picturesque, near a considerable bay, with a chain of mountains behind.* The cities of Corasan may more connectedly be mentioned with those in the eastern division of Persia.

On returning towards the south-west, there appear Bistam, a small city on the north of the great salt desert, rarely visited by travellers; and to the west, Chover or Khavar, with a pass of the same name, through a branch of the Caucasian mountains of Mazendran, which is preferred to the passage through the desert.

Still proceeding westward, three considerable cities successively occur, Tahiran, Casbin, and Sultania.

Casbin. Chardin describes Casbin as a very considerable city; but in Hanway's time it had greatly declined, and twelve thousand houses were reduced to eleven hundred. It is situated in a fair plain, about three leagues from the noted mountains of Aluvend, or Elwend. In the sixteenth century Shah Tahmas, unable to defend Tauriz against the Turks, retired to Casbin, which he constituted the capital city of his empire; a dignity transferred by Abas the Great to Ispahan.

Hamadan is another considerable city in this quarter, situated, according to Hanway's account, on the north-west of the mountain Elwend, while D'Anville places it south-east.†

Kom. Kom or Khums was visited by Chardin, who in travelling from Sava passed a wide plain, with a hill in the middle called the mountain of the Talisman, from some singular appearance which it assumes. He represents Kom as a considerable city, at the foot of high mountains, and near a considerable river, which is lost in the great salt desert. The houses were computed at fifteen thousand; and the chief

* Hanway, ii. 422. Dec. Russ. iii. 33.
† Thevenot, ii. 72. Hanway, i. 163.

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manufactures were white earthen ware, soap, and sword blades. Here are the superb tombs of Sefi I and Abas II. Cashan is another considerable city on this route to Ispahan.

Towards the Turkish frontier, one of the largest rivers of Persia, the Ahwaz, or ancient Choaspes, flows into the Tigris; but though the ancient Susa decorated its banks, the modern towns of Kiab and Ahwaz are of small account; nor is Tostar, or more properly Shuster, of much consequence, though the capital of a province.

In the proximity of the Persian gulf, Kazerun, Firuzabad, and Jarun, or in the oriental pronunciation Yarun, barely deserve mention.

Lar. Lar is the capital of a province, formerly a kingdom, conquered by Abas in 1612, and described by Chardin in his journey from Ispahan to Bander-Abassi.* The situation is sandy, amidst barren mountains; but the gardens abounded with dates, an excellent fruit, which particularly prospers in this part of Persia. The houses were only about two hundred; and the independence of this petty kingdom is a striking proof, among many others, of the complete inattention of the Persians to their coasts, as well as to maritime affairs. Were a Peter the Great ever to arise among them, he would first direct his efforts to remove their singular prejudices against the sea; an important step towards rendering Persia a great and united empire.

The celebrated Persian gulf has been always more remarkable for the factories of foreigners, than for native establishments. Bander-Abassi was a port opposite to the isle of Ormus, or rather on the coast between Ormus and Kishmish, or Kishma, and is now more commonly known by the name of Gombroon. The trade, once considerable, is now greatly declined; and even the Dutch left it, and settled in the isle of Karek or Garak. The French Indian commerce has failed; and the English staple is Bussora. But Busheer, and Rik, or Bundarik, are also sometimes frequented.

Ormus. In the small isle of Ormus, at the entrance of the Persian gulf, was formerly a celebrated mart of Portuguese trade, established there by consent of the petty king of the country, who also possessed some districts on the opposite coast.† But the Portuguese were expelled by Abas the Great, with the assistance of the English, A. D. 1622.

The extensive coast of Mekran only presents two semblances of ports, at Tiz and Guadal, but of no moment in themselves, and placed in disadvantageous positions, the wide deserts obstructing the inland intercourse. Nor are the towns in that province of sufficient importance for the consideration of general geography.

Yezd. The province of Kerman contains a city of the same name; but some late authors represent Yezd as the capital, though generally supposed to belong to the province of Fars. This city is celebrated for the manufacture of carpets, and stuffs made of camel hair: but the chief manufactures of carpets are in the fertile vale of

* ix. 214.

† The curious reader may consult Teisheira's history of Persia for that of Ormus, written by Torun Shah, king of the country. The kings were Arabs, as were probably those of Lar, and entertained constant intercourse with the opposite coast of Arabia.

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Segistan, in eastern Persia. To the north of Yezd stand Hirabad, a considerable town, near the mountain of Elburz, and not far from the southern limits of the great salt desert; which if not the desert of Margiana, placed by Ptolemy on the north-west of the Aria-Palus or sea of Zurra, seems to have been unknown to the ancients. The other cities of western Persia scarcely deserve commemoration.

Eastern Cities. In passing to the eastern division, or kingdom of Candahar, it may be proper to observe that Cabul, the metropolis, is situated within the limits of Hindostan; but Candahar* is by D'Anville and others ascribed to Persia, being however a city of small size, and chiefly memorable as the grand passage between these extensive empires. The province of Segistan is in general little known in modern travels; and it is to be regretted that Mr. Forster passed with such rapidity, and did not visit the vale fertilized by the river Hinmend, nor the interesting environs of the sea of Zurra. Zarang is supposed to equal any city in Segistan, retaining the ancient name of the Sarangæ: it is now chiefly remarkable for beautiful porcelain.† The other chief towns on the Hirmend are Dargasp, Bost, and Rokhage or Arokhage. Near another stream which flows into the sea of Zurra, or rather Zerab, is Farra, another place little known. In general D'Anville and other writers have been obliged to have recourse to Arabian geographers; whence maps often present places which may no longer be in existence.

The dominion of Zemaun Shah comprizes a considerable portion of Corasan.

Herat. The city of Herat stands on a spacious plain, intersected with many rivulets, which, with the bridges, villages, and plantations, delight the traveller, fatigued in passing the eastern deserts of Afganistan, or the country of the Afgans.‡ It is a smaller city than Candahar, but maintains a respectable trade, and provisions are cheap and abundant. Some European goods pass hither from the gulf of Persia; but coarse strong woolens are manufactured in the adjacent districts. This city was the capital of Corasan, till the first Sefi of Persia transferred this rank to the northern city of Meshid, which contained the tomb of Muza, his supposed ancestor, and one of the twelve great Imams of Persia.‖ When Mr. Forster visited this country, 1784, Meshid, with a small territory, was held by Shah Rok, a grandson of Nadir. The districts of Dochabad then formed the western boundary

* Mr. Forster, ii. 102. informs us that Candahar is of a square form, about three miles in circumference, situated in an extensive plain, the supposed mountains being merely interspersed hills. But to the west there is a considerable desert, extending nearly to Herat, which constitutes the real difficulty in passing from Persia to Hindostan.

† Chardin, iv. 243. who calls it Zorend, and erroneously places it in Kerman.

‡ Forster, ii. 115.

‖ Mr. Forster informs us, i 32, that the road from Herat to Ghilan lies through the lesser Irak, which he distinguishes from Irakajemi; but, among many inaccuricies in his book, he confounds this last with Irakarabi! Meshid is supposed to be the same with Tuz, the birth-place of the celebrated Ferdusi.

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of the empire of Candahar, being about thirty or forty miles to the east of Turshiz.

It is probable, as already mentioned, that the southern province of Mekran naturally coincides in allegiance, with Segistan and Sindi, to the empire of Candahar; but the northern limits have not been defined, though Major Rennell inform us that they include Gaur, a considerable city and province. Bamian belong to the same portion of Bucharia, and is remarkable for a variety of singular antiquities, observable in the adjacent mountains. But for the sake of greater coherency, these places shall be considered in the account of Independent Tatary, or the countries between Persia and the Chinese and Russian empires, which follows this imperfect description of Persia.

Edifices. In the recent desolation of the country many of the most splendid edifices are become ruinous, and among others the palace of Ashref in Mazendran. The late Kerim has however decorated Shiraz with many beautiful buildings. He also improved the roads in the vicinity; but in Persia, which may, as Chardin observes, be called a country of mountains, the roads are not only difficult, but kept in bad repair.* The singular aversion of the natives to any kind of navigation, has prevented even the idea of improving the country by canals.

Manufactures and Commerce. The manufactures and commerce of this great country may be said to be annihilated, though a few carpets still reach Europe at extravagant prices. Even the trade with the Russians on the Caspian is of small account, consisting of salt and naphtha from Baku, and some silk from Shirvan, called by the Russians Shamakia, but chiefly from Ghilan, where there is a Russian consul at Enseli or Sinsili. The Persian merchants also bring goods to Balfrush, the largest town in Mazendran, where they trade with those of Russia. Concerning the modern state and decline of Persian commerce, the travels of the late worthy Mr. Hanway, who was wholly occupied with that subject, will give satisfaction to the most inquisitive reader.†

That intelligent but prolix traveller, Chardin, has given an ample view of the Persian manufactures and commerce in the seventeenth century. Embroidery was carried to the greatest perfection, on cloth, silk and leather. Earthen ware was made throughout Persia; but the best at Shiraz, Meshid, Yezd, and particularly beautiful at Zarang, which equalled the Chinese porcelain in fineness and transparency: some sorts resisted fire, and the fabric was so hard as to produce lasting mortars for grinding vorious substances.‡ That of Yezd, which Chardin places in Kerman, was noted for its lightness. It is remarkable that Pliny says, that the famous Murrhine vessels of the ancients were brought from this identic province of Carmania;‖ and were probably porcelain, if some singular mineral be not yet concealed in that country.

* The causy of Abas the Great is a noble monument, extending about 300 British miles on the south of the Caspian. Hanway, i. 198.

† The best edition is that of 1754, two vols. 4to. In the pretended one, 1762, the title page only is new.

‡ iv. 243.

‖ Lib. 37. cap. 2.

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The manufactures of leather, and shagreen, were also excellent;* and they excelled in braziery, using the tin of Sumatra to line the vessels. The bows of Persia were the most esteemed of all in the east, and the sabres finely damasked, in a manner which Chardin thinks inimitable in Europe; for, not content with their own mines of steel, or carbonated iron ore, they imported it from India, and wrought in it a particular manner described by our author. Their razors, and other works in steel, were also laudable; and they excelled in cutting precious stones, and dying bright and lasting colours; the glass manufactures were of an inferior description. Their cotton and woolen cloths, and those made of goats' and camels' hair, with their silks, brocades, and velvets, were superior manufactures, The carpets, as already mentioned, were chiefly from the province of Segistan; and Chardin adds, that in his time they were called Turkey carpets, because they were brought to Europe through that country; and were valued by the number of threads in the inch, being sometimes fourteen or fifteen. The stuffs made of camels' hair were chiefly from Kerman, and those of goats' hair from the mountains of Mazendran; but the cotton cloths principally from Hindostan: and the fabric of broad cloth was unknown, and supplied by a kind of felt.

The king himself was engaged in merchandize of silk, brocades, carpets, and jewels; probably with as little advantage to the country as the royal monopolies in Spain. The standard native merchandize was silk of various qualities. To Hindostan were sent tobacco, preserved fruits, especially dates, wines, horses, porcelain, and leather of different colours. To Turkey, tobacco, kitchen utensils; to Russia, manufactured silks. Such were formerly the manufactures and commerce of this extensive country.

* The proper term is *sagrin*, from the Persian word *sagri*. Chard. iv. 246.

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CHAPTER IV.

NATURAL GEOGRAPHY.

CLIMATE.—FACE OF THE COUNTRY.—SOIL AND AGRICULTURE.—RIVERS.—LAKES.—MOUNTAINS.—DESERTS.—FORESTS.—BOTANY.—ZOOLOGY.—MINERALOGY.—MINERAL WATERS.—NATURAL CURIOSITIES.—ISLES.

CLIMATE. PERSIA has been said to be a country of three climates; but even in the south the high mountains contribute to allay the extreme heat. The northern provinces, on the Caspian, are comparatively cold and moist; the exhalations from that sea being arrested by the mountains to the south of Mazendran. In the centre of the kingdom Chardin observes that the winter begins in November, and continues till March, commonly severe, with ice and snow; though the latter chiefly falls on the mountains, and remains on those three days journey to the west of Ispahan for eight months of the year.* From March to May high winds are frequent; but thence to September the air is serene, refreshed by breezes in the night. From September to November the winds again prevail. In the centre and south the air is generally dry, whence thunder or lightning are uncommon, and a rainbow is seldom seen. Earthquakes are almost unknown; but hail is often destructive in the spring. Near the Persian gulf the hot wind called Samiel sometimes suffocates the unwary traveller.

FACE OF THE COUNTRY. According to Chardin, Persia may be called a country of mountains; and where great plains occur they are generally desert. The most remarkable feature of the country is the want of rivers; in which respect it yields to all the Asiatic regions, save Arabia. Except in the north, and some parts of the western mountains, even trees are uncommon; and the respect paid by the Persian monarchs to planes, and other trees of diffuse shade, is no matter of surprise. Considered in a general scale, one of the most singular features of the country is its division into two parts by deserts and mountains; a circumstance which in all ages, as already explained, has greatly influenced its history and destinies.

SOIL AND AGRICULTURE. The soil may be regarded as unfertile, and Chardin supposes that not above one tenth part was cultivated even in his time. To his lax observation, that Persia is the most mountainous country in the world, he adds that the mountains are

* iv. 19.

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extremely arid, being mostly rocks, without wood or plants. They are, however, interspersed with vallies, sometimes sandy and stony, sometimes of a hard dry clay; both unproductive, if not well watered. Hence the chief industry of the Persian farmer is employed in watering his lands. These remarks however must be restricted to the central and southern provinces; for those in the north are sufficiently rich and fertile, and it is said that the province of Segistan is enriched by the inundations of the river Hinmend: but of this part of Persia our knowledge remains imperfect.

The most common grain of Persia is wheat, which is excellent; but rice is a more universal aliment, and regarded by the Persians as the most delicious of food.* It is generally produced in the northern, or best watered provinces. Barley and millet are also sown, but oats little, if at all, cultivated. The Armenians sow some rye. The plough is small, and the ground merely scratched: it is drawn by lean oxen, for there are no pastures to fatten cattle, and the harness is attached to the breast, while the chief strength of the animal is in the head. After the plough and harrow, the spade is also used to form the ground into squares, with ledges of little banks to retain the water. The dung is chiefly human, and that of pigeons mingled with earth, and preserved for two years to abate its heat. In the north-west countries the vines are interred during the winter; and when insects attack the tree, they lay fresh earth to the roots.

Rivers. The noble streams of the Euphrates and the Tigris can scarcely at any period be considered as strictly Persian, though Ctesiphon, the capital of the Parthian monarchy, and Seleucia, stood on the latter river. The river of Ahwaz rises in the mountains of Elwend, and pursues a southern course till one branch enter the Tigris above its junction with the Euphrates, while the main stream flows into the estuary of these conjunct rivers. This seems to be the Gyndes of Herodotus, now, according to D'Anville, called the Zeindeh, and by the Turks Kara Sou, or the black river.† The course of this stream, one of the most considerable in Persia, little exceeds 400 British miles.

From the range of mountains on the north-east, several rivers of short course fall into the Persian gulf, one of the most considerable, being the Rud or Divrud, which joins the mouth of that gulf. The rivers of Mekran are of more considerable course, as the Krenk and Mekshid, which, conjoined, from the river of Mend, so called from a town by which it passes. The Haur and the Araba are of small consequence, except that the latter serves as a nominal boundary towards Hindostan.

Amu. In the north-east the large river of Gihon, better styled Amu, to avoid the confused similarity with another large river, the Sihon, rather belongs to Independent Tatary, with its numerous tri-

* Chardin, iv, 222.

† See his map of the Euphrates and the Tigris, 1779, in which the Choaspes is supposed to run by Deurak into the Persian gulf on the east of the Shat el Arab; but Major Rennell, in his map of the Satrapies, considers the Gyndes of D'Anville as the Choaspes, and the Gyndes, as the river of Mendeli. The geography of Persia remains very imperfect.

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butary streams; except the Margus or Margab, called also the Mourgab, which, however, in the opinion of D'Anville and La Rochette, is rather lost in the sands. To the west, the river of Tedjen or Teyden*, the ancient Ochus, flows into the Caspian: which also receives many small streams from the mountains of Mazendran. D'Anville assigns a very considerable course to the river of Kizil Ozen, or Sefid Rud, which he derives from the mountain of Elwend, not far to the north of Hamadan: so that, by a very winding course to the Caspian, its length doubles what is assigned in more recent maps. This river is the Mardus of antiquity, and must be the Swidura of Gmelin, rising on the confines of Turkey, and falling into the sea below Langorod†. It produces numerous pike, carp, and other kinds of fish, esteemed by the Persians: Gmelin says that it abounds in sturgeons.

Aras. Further to the north the large river Aras, the ancient Araxes, falls into the Kur or Cyrus, both rising in the Caucasian mountains, and pursuing a course of extreme rapidity. The Kur abounds with sturgeon and other large fish: and at its mouth are several isles liable to be overflowed in the spring‡.

The central rivers of Persia remain to be mentioned, most of which are soon lost in sandy deserts, but deserve attention from their historical celebrity.

Zenderud. The Zenderud rises in the western chain of Elwend, and passes by Ispahan, beyond which capital its course is soon lost in the sand; this river seems to have been the second Gyndes of the ancients. Chardin says that Abas the Great, by piercing some mountains thirty leagues from Ispahan, drew another stream into the Zenderud, called Mahmoud Ker, from a deep subterranean lake. These two sources of this river are not indicated in the maps. He adds that there are two rivers in the vicinity called Correng, which pass through Chaldea (he means Susiana), probably the Koh Asp of D'Anville‖ which passes by Shuster, which the Persian monarchs in vain attempted to introduce into this favourite stream.

Bundamir. But the most important river in this quarter is that which passes between Shiraz and Istakar, or the celebrated ruins of Persepolis, called the Bundamir, and supposed to be an ancient Araxes. This celebrated river flows into a salt lake called Baktegan, and which also receives a considerable stream from the north-east called the Kuren**. Between these two rivers a branch of the mountains of Elwend extends south-east, on the western side of which

* In the east, as in many European countries, the *J* is an open *I*, or a *Y*.

† Descouvertes Russes, ii. 373. See also Hanway, i. 179, and 275, where this river is called Sefietrood. There is a bar at the entrance, but a considerable depth within. It is of a reddish tinge. Ibid. 178.

‡ Gmelin, ib. 236.

‖ See his ancient geography, ii. 485, English translation, where he adds that it springs from the Koh Zerde, or Yellow Mountain, from whose opposite sides issues the river of Ispahan; and p. 487, he supposes the Kuren to be the river which the Persian kings wished to turn into the Zenderud. All the inland rivers are unknown to Ptolemy.

** This river La Rochette, in his elegant map of the marches of Alexander, supposes was the Medus, and perhaps a Mardus of the ancients.

stand the ruins of Persepolis. These mountains, called Rehnmut, being considerable, and the plain of Merdasht extensive, it would seem that geographers have too much contracted the space between the rivers of Kuren and Bundamir.

HINMEND. The largest and most remarkable inland river is the Hinmend of the province of Segistan, which rises from two widely separated sources, one in the mountains of Ghur, a part of the Hindoo Koh, and the other far to the south from the mountains of Gebelabad. These streams join not far to the east of Bost, whence the river pursues a westerly course, and according to the account of Otter* very soon divides into many branches, which are lost in the central deserts of Persia. Our geographers on the contrary, suppose that the Hinmend passes by Zarang into the sea of Zereh. It needs not be repeated that the geography of this part of Persia is still lamentably defective.

LAKES. Among the lakes of Persia, the most considerable beyond all comparison is the Aria Palus of antiquity. This large lake is in the western part of the province of Segistan, and is called in the French maps the lake of Zeré, from a village of that name near its western extremity, but in the English, the sea of Durra, from another village situated on a river at the distance of twenty miles from the lake†. These appellations, derived from trifling sources, might as well be supplanted by that of the sea of Segistan. According to Otter the length is thirty leagues, by a day's journey in breadth; and the water is fresh and full of fish. By his account it only receives the river of Ferah, or Parra, which comes from the north-east; but perhaps that traveller decides upon a brief and hasty information, as not unusual. Ptolemy, who is here better informed than concerning western Persia, still errs widely in the position of this celebrated lake.

BAKTEGAN. The salt lake of Baktegan, about fifty miles east of Shiraz, receives, as already mentioned, the rivers of Kuren and Bundamir. It is represented in the maps as about forty British miles in length, and the breadth about ten; but the imperfection of Persian geography affords no further information‡.

URMIA. Far to the north-west appears the large lake of Urmia, so called from a town near its southern extremity. This lake is represented as about fifty British miles in length, by about half the breadth; and while D'Anville supposes that the lake Van, at no great distance, is the Arsissa of antiquity, he concludes that this is the Spauta of Strabo, and the Marcianes of Ptolemy, being the Capoton of Armenian geography. However this be, the lake of Urmia is said to be considerably impregnated with salt, and the neighbouring mountains were remarkable as the seats of the Assassins.

* Voyage en Turkie et en Perse. Paris 1748, 2 vols. 12mo. tome i. 217.

† The name Zurra seems to be from the village of Corra, or Curra, at the west end of the lake.

‡ By Ebn Haukal, in the tenth century, it is called the lake of Baktegan. Ouseley's translation, p. 84. The same author, p. 206, says that the Hinmend rises in Gaur and proceeds to Bost, thence to the lake Zareh: not by Zarang, as appears from p. 203, but by Schijan.

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ERIVAN. The lake of Erivan, about 120 British miles to the north, is about twenty-five leagues in circumference, with a small isle in the middle: it abounds in carp and trout, and is the Lychnites of Ptolemy.*

MOUNTAINS. The precise and exact knowledge of mountains, particularly of the direction and extent of the chief ranges, which, with their side branches, often resemble the leading bone of a fish, having been one of the most recent improvements even in European geography, it cannot be expected that the Oriental should aspire to much exactness on this topic. Travellers have rarely attended to the great geographical features, but have chiefly confined their attention to buildings, and other exertions of human industry, or to botany and zoology. Hence the difficulty which attends many branches of geographical description; and in the present instance early travellers are unanimous in representing Persia as a plain country, so blind were they to the most striking objects around them.†

The first object, even in a short account of the Persian mountains, must be to trace the direction of the chief chains. It is clear, from the accurate description of Gmelin, that the Caucasian ridge extends to the west of Ghilan and south of Mazendran, till it expires in Corasan, on the south-east of the Caspian sea. As this ridge was the Taurus of the ancients, which they supposed to extend throughout the whole length of Asia, it is evident that their idea was erroneous and hypothetical. If it had been connected, as they supposed, with Hindoo Koh and the mountains of Tibet, the theory might have been in some measure just; but the Hindoo Koh is an extension of the Belur Tag towards the west, and is separated even from the low mountains of Corasan by wide deserts and plains.

The northern ridge, described by Gmelin, is sufficiently clear;‡ as is the most southern chain of great height described by Mr. Franklin, running parallel with the Persian gulf north-west and south-east, at about the distance of 50 British miles.

A third range of mountains, of very great height, seems to continue in the same direction with this last, to the south of the lake of Urmia, where it is connected with the Caucasian ridge. This is the grandest chain of mountains in Persia, and may, after the example of D'Anville, be styled that of Elwend, derived from a particular mountain in the neighbourhood of Hamadan; but the Elwend of that great geographer is, like his other mountains, delineated in a most confused manner, and he intercepts its course by a wide desert which really lies to the west of the range.‖

* Chardin, ii. 222. Tournef. ii. 256.

† See the Persia among the Elzevir Republics, 1633, 12mo.

‡ Dec. Russ. ii. 588. The French translator justly observes that Gmelin's account of their construction shews little skill in mineralogy. Near Derbent and Baku they are calcareous, but the central chain seems granitic. It forms a semicircle on the south of the Caspian; and Hanway has observed, i. 110, that even at Astrabad, the summits are so high as to hide the sun from a ship in the bay, for more than an hour after it has risen.

‖ Otter, i. 267, informs us that Looristan, a country between Tuster and Ispahan, is properly one mountain, six days journey in length. It belongs to the main ridge of Elwend.

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A parallel ridge on the west, called by the Turks, Aiagha Tag, is supposed to be the Zagros of the ancients, which separated Assyria from Media.* This western chain seems to extend to the lake of Van, for mount Ararat is represented as standing solitary in the midst of a wide plain, and from proximity might rather be classed with the range of Caucasus.† The mountain of Sawalan, mentioned by Le Brun, to the south of Ardebil, also belongs to the Caucasian mass.

Hetzardara, or the thousand mountains, form a branch on the north of Fars, and one part of it, which gives rise to the river of Ispahan, is called Koh Zerdeh, or the yellow mountain. Chardin‡ considers the noted Damavend of the Persians as a range dividing Hyrcania from Parthia; that is, in other words, the mountains of Mazendran: and he adds, that of the mountains betwixt Fars and Kerman the most remarkable is called Jaron; but the mountains of Kurdistan alone present forests. The ancient geographer Ebn Haukal, whose curious work is chiefly occupied with a description of Persia, according to its divisions in the tenth century, informs us, that from the vicinity of Kurdistan towards Ispahan, the country is wholly mountainous; and he classes among the chief heights the Damavend, from which he says a prospect is beheld of fifty farsangs, or 200 miles; while that of Bisetoun, in the same region, was celebrated for remarkable sculptures.‖ From his geography it appears that many of the Persians, even in Fars, still retained the temples and worship of their ancestors in the tenth century; so that the violence of the Mahometans after the conquest appears to have been greatly exaggerated.

The great western range is also called in some parts the mountains of Looristan; and more to the south the Adervan, and Dinar, with Ajuduk north of Lar. It detaches some remarkable branches to the south-east, as that on the west of Kom, Cashan, Nathan, &c. which, from a particular mountain, may be called the range of Elburz. Another branch spreads to the south of Ispahan, which D'Anville considers as what the Persians style the Thousand Mountains.** Still more to the south a large and extensive branch (of which the whole, or one mountain is styled Rehumut) extends between the rivers Kuren and Bundamir; and presents on the western side of its furthest extremity the noted ruins of Persepolis.

On passing towards the east of Persia, the just delineation of the ranges is attended with similar difficulties. The pass of Khavar is near the southernmost extent of the Caucasian heights of Mazendran;

* D'Anville Anc. Geog. ii. 463.

† Among the mountains of Kurdistan the Kiave is the highest, the summit being covered with thick fog and perpetual snow (Otter, ii. 269). The same author says that the ridge of Hamrin begins in Arabia, and spreads through the desert of Bagdad, being pierced by the Euphrates and Tigris, and ending at the Persian gulf: it is a low range of a reddish colour. Ib. 43.

‡ iv. 10.

‖ p. 172. D'Anville marks Damavend due west of Ispahan. His Karagan is south of Sultania.

** One of these, near Ispahan, is called Tag Rustan.

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and there is no room to believe that any ridge extends into the great saline desert. D'Anville has drawn a range on the east of that desert, extending on the south of Turshiz as far as the lake of Zeré, called in some maps the Sandy Mountains, and supposed to be the Masdoranus of the ancients: but this seems an arbitrary idea, as it is improbable that ancient writers should have observed this low ridge of sandy hills, while the great desert itself totally escaped their knowledge. Mr. Forster crossed these pretended mountains without discovering them;* and found only small rocky hills scattered in all directions. This sandy ridge may therefore be dismissed from the maps, along with that supposed to pervade the saline desert; and the Mons Masdoranus is probably that which now passes near Metziroun, and seems to be an elongation of the Caucasian chain already mentioned.

In describing this country of mountains, to use the emphatical term of Chardin, some degree of prolixity is unavoidable. The province of Fars is represented by some writers as separated from Kerman by mountains; but the real barrier is a desert of sand, extending from the south of the lake of Baktegan to the proximity of Zarang, and connected with the great desert which divides Persia into two parts. The city of Yezd being on the western side of this desert, more properly belongs to Fars than to Kerman; and was arranged in the former division, even in the tenth century.† Nor are there any mountains of consequence in the east of Fars. A low range called Meder by D'Anville, passes north-east through the heart of Kerman; while that country is divided from Mekran by a range in the same direction, called by D'Anville Kofez. Some other nameless ranges cross Mekran in the same direction, that nearest Hindostan being called by Rochette the Lakhee mountains. On the north of Mekran a considerable range runs east and west which has not been named by D'Anville,‡ though it seem the Becius of Ptolemy. But of this part, as before explained, modern knowledge is very defective.

Further to the north the mountains of Wulli extend from the neighbourhood of Shatzan across to the lake of Vaihind, and may thus be considered as forming one range with that on the north of Mekran, called Gebelabad by la Rochette. This range however expires in the great desert to the south of Zarang.

In the east of Segistan is a ridge north and south called Soliman Koh, or the mountains of Soliman. It is probable that there are mountains of considerable height on the north and west of the sea of Zurra; one of which is called Bershek, and another Ouk, the former being noted for a Fire temple, the resort of the Guebers.

* Mr. Forster observed no ridges from Candahar to Corasan, (Rennell, 153; see also 191,) whence it appears that he found only dispersed hills, where the maps had represented chains of mountains. Herat stands on a spacious plain; Forster ii. 115: but to the north of Dochabad and Turshiz, there is a range of mountains covered with snow. Ib. 154. The other quarters presented rocky hills dispersed in the desert. About three miles east of Khanahoody, a chain of mountains of some height extends north and south. Ib. 176.

† Ebn Haukal, 86.

‡ Rochette calls it Gebelabad.

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The Hindoo Koh, and the mountains of Gaur, the last, probably the Paropamisus of antiquity, need not be again mentioned, except to observe that they have no connection with the chain of Caucasus, as the ancients supposed; or they were rather misled by similar names being bestowed on very distant mountains, in the wide extent of the Scythian language. They might as well have inferred that mount Imaus was a continuation of Hemus. As vast sandy deserts intercept any continuity of ridges in the centre, or south of Persia, so in the north-east, the mountains of Corasan are widely separated from those of Gaur; being, as already mentioned, a mere elongation of the mountains of Mazendran passing to the north-east and terminating not far from Meshid, being well delineated by D'Anville under the names of Sahar Turok, Lassi-Topan, and Miam Koh, none of which pass the river Tredjen, or Ochus. The river Morgab springs from the mountains of Gaur, which, on the east of Herat bend towards the north, forming the range called Lokman by D'Anville, which terminates to the south of the greater Meru; and the desert of Karakum prevents the extension of mountainous ranges in this quarter.

This discussion sufficiently evinces the mistake of the ancient geographers who extended their supposed range of Taurus throughout Asia, instead of Asia Minor: and if we must violently include the Caucasus, whose grand summits are on the north of the Euxine, under that appellation, it still terminates in Corasan. If on the other hand, the Taurus be continued by a supposed chain to that of Elwend, it would terminate in the great central desert, or at the mouth of the Persian gulf. As the geographers of antiquity paid particular attention to the ranges of mountains, without which indeed the science itself becomes an empty name, and history, natural or civil, can never be properly explained or understood, an investigation of this curious topic will not it is hoped, be deemed unnecessary. The marches of Alexander, and other classical topics, have also recommended the mountains of Persia to particular consideration; while some degree of prolixity unavoidably arises from the obscurity of the subject, and the imperfection of the materials.

Deserts. Nor must the deserts be passed in complete silence though few words may suffice. On the east of the Tigris, latitude thirty-three degrees, a considerable desert commences, which is pervaded by the river Ahwaz, and extends to the north of Shuster, but D'Anville has spread it too far to the east. This desert may be about 140 British miles in length east to west, and the breadth about eighty. In his map of ancient geography D'Anville has omitted this desert, which seems indeed unknown to classical authority. It is now chiefly possessed by the wandering tribe of Arabs called Beni Kiab, a people who, like the desert are not a little obscure*.

The Great Saline Desert extends from the neighbourhood of Kom to that of the sea of Zurra, in a line from east to west, of about 400 British miles: the breadth from north to south may be 250: but in the latter quarter it may be said to join with the great desert of Kerman by the Nauben Dejian, which extends about 350 miles.

* See Niebhur, but this tribe seems rather to the south of the desert.

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These two extensive deserts may be thus considered as stretching north-west and south-east for the space of about 700 miles, by a medial breadth of about 200, (even not including in the length other 200 miles of the desert of Mekran,) thus intersecting this wide empire into two nearly equal portions, as before explained. This vast extent is impregnated with nitre, and other salts, which taint the neighbouring lakes and rivers: but its natural history has not been investigated with the precision of modern knowledge. In the south of Mekran and towards the Indus are other deserts of great extent.

A third great desert, that of Karakum, or the Black Sand, forms the northern boundary of Corasan and modern Persia; but the description more properly belongs to Tatary. The desert of Margiana is placed by Ptolemy on the north-west of Aria; but it is not easy to explain his positions or reconcile them with modern geography. D'Anville supposes, with probability, that Margiana derived its name from the river Margus or Morgab; in which case this desert may be in the neighbourhood of Badkis.

Forests. The Persian forests are unhappily restricted to a few spots in Corasan, the mountains of Mazendran and Ghilan, and those towards Kurdistan. But timber is chiefly supplied by Mazendran, which thence receives a name signifying the land of axes.

Botany. An accurate account of the indigenous vegetables of Persia yet remains a desideratum in the science of botany; the productions of the eastern and south-eastern provinces are almost wholly unknown to us, and the slight acquaintance that we have with those on the shores of the Caspian, and the frontiers of Russia, is almost entirely derived from the short and imperfect notices that occur in the travels of Pallas and Gmelin, in the neighbourhood of the Caspian.

A considerable portion of the Persian territory especially on the side of great Tatary, appears to be occupied by salt deserts; these are for the most part destitute of trees, and support hardly any plants, except such of the saline succulent kind as are also found on the sea shore; of these the chief are known among botanists by the names of salsola prostrata, atriplex portulacoides, plantago salsa, and statice Tatarica.

Of the high mountains, as far as they have been examined, we are only informed in general, that their vegetable inhabitants are for the most part the same as those observed on the Alps of Swisserland and Italy: and that a large proportion of these are the of the cruciform, or tetradynamious order.

The plants of the hills and cultivated parts adjoining the Caspian sea are better known to us, and from the few whose names we are already in possession of, it is easy and reasonable to infer the presence of many more that are usually observed to accompany them. On the mountainous ridges are found the cypress, the cedar, and several other kinds of pines, while the lower hills and scars of rock are shaded and adorned with lime trees, oak, acacias, and chesnuts: the sumach, whose astringent wood is so essential to the arts of dying and tanning, grows here in vast abundance, and the fraxinus ornus, or Manna ash tree, is scarcely less common. The most esteemed of the cultivated fruits of Europe are truly indigenous in Persia, and have probably hence been diffused over the whole west. These are the fig, the pomegranate, the

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mulberry, the almond, peach, and apricot. Orange trees also, of an enormous size, and apparently wild, are met with in the sheltered recesses of the mountains; and the deep warm sand on the shore of the Caspian is peculiarly favourable to the culture of the citron, and the liquorice. The vine grows here in great luxuriance, and further to the south both cotton and sugar are articles of common cultivation. Poplars of unusual size and beauty, and the weeping willow, border the course of the streams, and the marshy tracts abound with a peculiar kind of rush that forms the material of the fine Persian matting. The ornamental shrubs and herbaceous plants of this country are but little known, four of them however, from their abundance and beauty, give an air of elegance to the country, especially in the eyes of an European, superior to that of any other region; these are the jasmine and the blue and scarlet anemone in the thickets, and the tulip, and ranunculus in the pastures.

Zoology. According to Chardin the Persian horses are the most beautiful even in the east: but in speed they yield to the Arabian, which are less distinguished by elegance of form. The Persian steeds are rather taller than the saddle horses in England; the head small, the legs delicate, and the body well proportioned; of a mild disposition, very laborious, lively and swift. Tatarian horses are also used, of lower stature, and not so well formed as the Persian, but more capable of fatigue*. Mules are also in considerable request; and the ass resembles the European, but a breed of this animal is brought from Arabia, which is excellent, the hair being smooth, the head high, while they move with spirit and agility. This valuable race might probably thrive in Europe as well as the other. The dung of horses, instead of being used for manure, is dried and employed as litter. The camel is also common, but not admitted into the province of Mazendran, where they eagerly eat the leaves of box, though to them a rank poison. Camels are exported from Persia to Turkey, having according to Chardin, only one hunch, while those of India and Arabia have two. The swiftest must be the dromedary of the ancients, as the name imports. The Persian cattle resemble the European, except towards Hindostan, where they are marked by the hunch on the shoulders. Swine are scarce, save in the north-west provinces. Of the large tailed sheep that appendage sometimes weighs more than thirty pounds, enlarging at the bottom in the form of a heart. The flocks are most numerous in the northern provinces of Erivan, or the Persian part of Armenia and Balk. The few forests contain abundance of deer and antelopes; while the mountains present wild goats, and probably the ibex, or rock goat. Hares are common in the numerous wastes. The ferocious animals are chiefly concealed in the forests, as the bear and boar, the lion in the western parts, with the leopard, and, according to some accounts, the small, or common tiger. Seals occur on the rocks of the Caspian. Zimmerman mentions the ounce as known in Mazendran, and the wild ass in the central deserts. The hyena and chackal belong to the southern provinces. The seas abound with fish of various descriptions: the Caspian displays sturgeon, and

* iv. 72.

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some kindred species, with a fat and delicious kind of carp. The most common river fish seems the barbel, trouts are only found in Erivan. Chardin observes that pigeons are particularly numerous; and the partridges are the largest and most excellent he ever beheld. The boolbul, or oriental nightingale, enlivens the spring with his varied song.

The Persians have been long accustomed to tame beasts of prey, so as even to hunt with lions, tigers, leopards, panthers, and ounces*. The hunter seems to run a risk of becoming the prey.

Mineralogy. The mineralogy of this extensive country seems neither various nor important, though the numerous mountains probably abound with unexplored treasures. Chardin assures us that there are no mines of gold nor silver, but one of the latter metal was attempted in a mountain called Shah-Koh, four leagues from Ispahan, and abandoned for want of fuel. The lead mines of Kerman and Yezd produce the usual mixture of silver, from which circumstance the silver mountains of D'Anville. In the northern provinces there are many mines of iron, but the metal is harsh and brittle. Mines of steel ore, or carbonated iron, are also wrought in the same regions, so impregnated with sulphur, that the filings, when thrown on the fire flash like gunpowder. Copper is chiefly found in the mountains of Mazendran, and near Casbin, but is brittle, and commonly mingled by the melters with a twentieth part of the Japanese, or Swedish. Those defects in the metals, probably arise from want of skill.

The only precious stone yet discovered seems to be the turkoise which has indeed almost ceased to be regarded as such, being only bone or ivory tinged with copper. There are two mines of this substance, one at Nishapour in Corasan, and another about four day's journey to the south of the Caspian, in the mountain called Feruzkoh. Pearls abound, as is well known in the Persian gulf, especially near the isles of Bahrin on the Arabian side. Some will weigh fifty grains; but those are esteemed large which weigh from ten to twelve grains. This valued product is by the Turks and Tatars called *Margion*, signifying a globe of light; from which, or the Persian name *Mervarid*, "the offspring of light," was derived *Margueríte*, the appellation in southern Europe. The Persian merchants prefer the emeralds of Egypt, which they call Zmerud Asvani, from the town of Asvan, to those of Peru: but Chardin, a jeweller, suspects that those emeralds were only imported into Egypt, as well as the carbuncle, which he supposes to have been a high coloured ruby: while the *yacut*, latinized *jacinth*, is a brown ruby from Ceylon. But he errs widely when he imagines that the ruby called *balais* came from the Balacchan, a name which he ascribes to Pegu; while in fact it is the product of the mountains of *Balaschia*, or Balk, as Marco Polo has long ago informed us. A late intelligent traveller in Pesia says that among the articles sold in the bazars of Ispahan are diamonds of Golconda: rubies, topazes, and sapphires of Pegu; emeralds of Said, which is the upper part of Egypt, or the Thebais: and Ballay rubies from Bedakshan, a country between the rivers Gihon and Murgab, which also produces lapis lazuli, amianthus, and rock

* Chardin, iv. 94.

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crystal*. Thus the high mountains of Belur Tag, and perhaps Hindoo Koh, are the peculiar seats of the Ballay ruby; a circumstance which identifies the Balaschia of Polo; while his Belur is the whole Alpine tract of the mountains so called.

Chardin adds that sulphur and nitre are found in the mountain of Damavend, which he places on the south of Hyrcania or Mazendran. Sometimes whole deserts are covered with sulphur, and others with salt, which near Cashan is remarkably pure. Rock salt is found near Ispahan; and in the dry climate of Kerman, if our author be credited, it is even employed in building. Free-stone, marble, and slate, are chiefly from Hamadan. Near Tauriz is found what he calls a marble, transparent, like rock crystal, through tables of an inch in thickness, of a white colour mingled with pale green, probably a kind of jad: in the same region is also found lapis lazuli, but not so fine as that of Tatary. Towards the Tigris there are pools of bitumen, or rock tar, while naphtha abounds near Baku. In Erivan and Fars are mines of talc; and of a pure white marl used like soap. What is called *mummia* is found in Corasan, and in the deserts of Kerman, deriving its name from the Persian word *moum*, signifying wax, gum, ointment. It was supposed to proceed from the human body, but according to Chardin, is a singular gum which distils from rocks; and the mines of this precious mastic, as he calls it, are carefully sealed for the royal use. It is probably a kind of asphaltum; but seems a variety which has escaped modern mineralogists.

Mineral Waters. Mineral waters of various descriptions abound in this mountainous country; but they are generally alike neglected by the physicians and the people.

Natural Curiosities. Among the chief natural curiosities must be named the fountains of naphtha, or pure rock oil, in the neighbourhood of Baku, on the western coast of the Caspian, particularly in the adjoining promontory of Absheron. The adjoining land is dry and rocky, and there are several small ancient temples, in one of which, near the altar, a large hollow cane is fixed in the ground, and from the end issues a blue flame, seemingly more pure and gentle, than that produced by ardent spirits†. From a horizontal gap in an adjoining rock, about six feet long by three broad, there also issues a similar flame.

"The earth round this place for above two miles, has this surprising property, that, by taking up two or three inches of the surface and applying a live coal, the part which is so uncovered immediately takes fire, almost before the coal touches the earth; the flame makes the ground hot but does not consume it, nor affect what is near it with any degree of heat. Any quantity of this earth carried to another place does not produce this effect. Not long since eight horses were consumed by this fire, being under a roof where the surface of the ground was turned up, and by some accident took flame.

"If a cane or tube, even of paper, be set about two inches in the ground, confined and close with the earth below, and the top of it touched with a live coal, and blown upon, immediately a flame issues.

* Otter, i. 208. † Hanway, i. 263.

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without hurting either the cane or paper, provided the edges be covered with clay, and this method they use for light in their houses, which have only the earth for the floor: three or four of these lighted canes will boil water in a pot, and thus they dress their victuals. The flame may be extinguished in the same manner as that of spirits of wine. The ground is dry and stony, and the more stony any particular part is, the stronger and clearer is the flame: it smells sulphurous like naphtha, but not very offensive.

"Lime is burnt to great perfection by means of this phenomenon; the flame communicating itself to any distance where the earth is uncovered to receive it. The stones must be laid on one another, and in three days the lime is completed. Near this place brimstone is dug, and naphtha springs are found.

"The chief place for the black or dark grey naphtha is the small island Wetoy, now uninhabited, except at such times as they take naphtha from thence. The Persians load it in bulk in their wretched vessels, so that sometimes the sea is covered with it for leagues together. When the weather is thick and hazy the springs boil up the higher; and the naphtha often takes fire on the surface of the earth, and runs in a flame into the sea in great quantities, to a distance almost incredible. In clear weather the springs do not boil up above two or three feet: in boiling over, this oily substance makes so strong a consistency as by degrees almost to close the mouth of the spring; sometimes it is quite closed, and forms hillocks that look as black as pitch; but the spring which is resisted in one place breaks out in another. Some of the springs which have not been long opened form a mouth of eight or ten feet diameter.

"The people carry the naphtha by troughs into pits or reservoirs, drawing it off from one to another, leaving in the first reservoir the water, or the heavier part with which it is mixed when it issues from the spring. It is unpleasant to the smell, and used mostly amongst the poorer sort of the Persians, and other neighbouring people, as we use oil in lamps, or to boil their victuals, but it communicates a disagreeable taste. They find it burn best with a small mixture of ashes: as they find it in great abundance, every family is well supplied. They keep it at a small distance from their houses, in earthen vessels under ground, to prevent any accident by fire, of which it is extremely susceptible.

"There is also a white naphtha on the peninsula of Apcheron, of a much thinner consistency; but this is found only in small quantities. The Russians drink it both as a cordial and a medicine, but it does not intoxicate: if taken internally it is said to be good for the stone, as also for disorders of the breast, and in venereal cases and sore heads; to both the last the Persians are very subject. Externally applied it is of great use in scorbutic pains, gouts, cramps, &c. but it must be put to the part affected only; it penetrates instantaneously into the blood, and is apt for a short time to create great pain. It has also the property of spirits of wine to take out greasy spots in silks or woolens; but the remedy is worse than the disease, for it leaves an abominable odour. They say it is carried into India as a great rarity, and being prepared as a japan, is the most beautiful and lasting of any that has been yet found. Not far from hence are also springs of hot water, which boil up in the same manner as the naphtha, and very thick, being impreg-

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nated with a blue clay; but it soon clarifies. Bathing in this warm water is found to strengthen and procure a good appetite, especially if a small quantity is also drunk*."

The justly celebrated Kæmpfer had visited these remarkable springs in the end of the seventeenth century†; and Gmelin, in the eighteenth century, 1773, has added little to the account of Hanway, except that the soil is a coarse marl, mixed with sand, and effervescing with acids. There are many other wells in an adjoining peninsula; and the revenue arising from this uncommon product of the khan of Baku was computed at forty thousand rubles‡.

Isles. The few Persian isles in the southern gulf, among which the most remarkable are Ormuz, once famous, now abandoned, Kishma, and towards the other extremity Karek, from which the Dutch were expelled in 1765, do not merit a particular description in a work of this nature; and far less those in the Caspian sea, the chief of which are on the coast of the Uzbeks.

* Hanway, i. 263, &c. † See his Amoen. Exot. ‡ Dec. des Russes, ii. 213

INDEPENDENT TATARY.

CHAPTER I.

GENERAL OBSERVATIONS.

NAME.—CHIEF DIVISIONS.—PROGRESSIVE GEOGRAPHY.—CONNECTION WITH LITTLE BUCHARIA, AND REVIEW OF THE ANCIENT AND MODERN GEOGRAPHY OF THAT COUNTRY.

THE description already given in this volume of Asiatic Russia and the Chinese empire, comprises the far greater part of what geographers denominated Tartary, by a vague term applied to a country exceeding all Europe in extent, and possessed by various and distinct nations and races of men.

By repeated victories over the Eluts and Kalmuks of Mongolia, or, to use the German term, Mongoley, the Chinese dominion has been extended to the mountains of Belur, thus including little Bucharia: while in the east Mandshuria remained subject to its sovereigns, who had become emperors of China. But so absurd is the common appellation of Chinese Tatary, that not one tribe of Tatars can be strictly said to be subject to the Chinese sceptre; for the ruling people of Little Bucharia were the Kalmuks, a Mongolian race.

NAME. Yet the title here given of Independent Tatary becomes unexceptionable, when confined to the bounds of the present description, for the Uzbeks and Kirguses are of undoubted Tatar origin; and their country must still be regarded as independent of the great neighbouring powers, China, Russia, and Persia.

The extensive region now under view is highly celebrated, and extremely interesting on many accounts. The probable seat of the most ancient Persian kingdom, the possession of the Greek monarchs of Bactriana, after many revolutions it was distinguished by the wide empire of Zingis and Timur, Samarcand being the favourite residence and capital of the latter conqueror. This distinguished portion of Asia has also given birth to many eminent men of letters, whose fame is diffused as wide as oriental literature. The most ancient Persian philosopher, Zoroaster, is said to have been a native of Bactriana; and, not to mention numerous intervening names, the work of Abulgazi, the sovereign of Kharizm, or the history of the Tatars, displays no mean industry and information.

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Extent. The extent of Independent Tatary may be measured from the Caspian sea to the mountains of Belur, a space of not less than 870 British miles. From the mountains of Gaur in the south, to the Russian boundaries on the north of the desert of Issim, may be near 1500 British miles; but of this length a great part is desert.

Divisions. The chief divisions are the wide stepps or barren plains in the north, held by three hordes of Kirguses, the Great, the Middle, and Lesser; with some small Tataric tribes near the sea of Aral. This portion was anciently called Western Tirkistan: the capital being Taraz, on a stream which flows into the Sirr, or Sihon, not far above Otrar, and which was also sometimes denominated Turkistan, from the name of the country. Before proceeding further, it must be observed in general, that the names in the best and most recent maps, are often derived from Persian and native geographers, so that a modern traveller might perhaps find it difficult to trace them.

To the south of the mountains of Argun, the land begins to fertilize, along the course of the Sirr, Sirt, or Sihon, the Iaxartes of the ancients, also called the river of Shash, from the chief territory; and on the banks of its tributary streams, which devolve from the Argun on the north, and the Ak Tau, or white mountain on the south, while the river itself springs from the mountains of Belur.

Ilak, &c. Ilak and Shash, the most northern provinces on the Sihon, are followed by Fergana, and a district called Ozrushna, round a town of the same name. Divided from these provinces by deserts and mountains, the kingdom of Charizm, formerly so powerful as to oppose the great Zingis, has gradually yielded to the encroaching desert, and now presents poor remains of Urghenz, its capital, the residence of Abulgazi; and Khiva, a small town, but the residence of a Khan.

Sogd. To the south of the range of the Ak Tau, appears the fertile region of Sogd, the ancient Sogdiana, with its capital Samarcand; which, with Vash and Kotlan, seems to have constituted the Mawerulnar of oriental geography, implying the country beyond the river Gihon or Oxus. On the south the provinces of Balk, Kilan, Tokarestan, and Gaur, terminate the bounds of Independent Tatary, here separated by deserts on the west from the Persian province of Corasan. In general Kharizm on the west is not considered as a part of Great Bucharia, but this last appellation must be regarded as embracing the whole extent, from the mountains of Argun and sources of the river Ilak, to the confines of Hindostan.

Progressive Geography. In ancient periods Western Turkistan, and the north of the Caspian, were the seats of the Massagetæ; to the south of whom were the Scythians on this side of the Imaus, or Belur Tag.

Scythians. The Scythians beyond the Imaus are described by Ptolemy as restricted to a confined strip of territory on the eastern side of the Imaus, and divided by an imaginary line from the Seres, who were undoubtedly the people of Little Bucharia. But as ancient knowledge here terminated, it is probable that the Scythians beyond

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the Imaus not only held the eastern ridges of these mountains, as a barbarous race continues to do, without molesting the industry of the distant plains, but that they were diffused along the ridge of Alak and the wide region called Gete, extending as far as the mountains of Bogdo, till they were expelled or subdued by more numerous or powerful nations from the east.

As it is now granted by all geographers that the range called Belur Tag, represents the Imaus, and that this range runs from north to south, forming the eastern boundary of Great Bucharia, it will be clear from Ptolemy's description and maps, that Serica can be no other country but Little Bucharia, always possessed by an industrious and intelligent race of men. Not only the ridge of Imaus, but the remarkable course of two considerable rivers towards the north-east, while all his other Asiatic streams have very different directions, sufficiently indicate Little Bucharia, in which the rivers correspond with Ptolemy's delineation, the Oechardes being probably the Orankash of modern maps, or perhaps the river of Yarcand: while his Bautisus may be the river of Koten, or that of Karia.

Progressive Geography. D'Anville has transferred the capital of this country as far east as Kantcheou, which belongs to the Chinese province of Shensi, standing on the river Etziné, which he thinks resembles the Bautisus of Ptolemy; and he adds, that the latitude corresponds with that of Ptolemy's Sera: a cogent argument, no doubt, while all that author's longitudes and latitudes in eastern Asia are completely erroneous! It is truly surprising that this able geographer should thus infer that the ancients had passed the great desert of Cobi, or had discovered China by land, without the smallest acquaintance with Tibet. The plan of the learned Gossellin restricted him to pursue only the sea coasts, but he expresses his opinion that Sera must not be placed at so great a distance to the east.* It has already been shown, that the numerous, and almost inaccessible mountains of Western Tibet have prevented even the moderns from acquiring a just knowledge of that country, which, from the same unavoidable cause, was totally unknown to the ancients: and there is no region but Little Bucharia which can correspond to Ptolemy's Serica.

The connection between the two Bucharias has occasioned the introduction of this disquisition here, where it seemed that the subject would appear more clear and connected than if a part only had been considered in the account of Chinese Tatary. It is to be lamented that the details concerning Little Bucharia are so imperfect, that few comparisons can be instituted between the modern names and situations, and those of Ptolemy, whose knowledge does not appear to have extended further than 80° from Greenwich. D'Anville supposes that the mountains of Annabi are those of Altai; but they are clearly those of Alak (called by some Musart) on the north of Little Bucharia. His towns of Auzacia, Issedon, &c. &c. it might perhaps be in vain to trace in the speedy declines and changes of Asiatic towns, even if we possessed ample and accurate maps of Little Bucharia. The mountains on the south correspond with the chain of Mus Tag, or the mountains of ice on the north of Tibet; and his metropolis of Serica is perhaps Kereja or Karia, not far from these mountains.

* Geog. des Grecs. Anal. p. 132.

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It is probable that small branches spreading from the Mus Tag towards the north are the Casius, (perhaps in the neighbourhood of the town and lake of Kas,) the Thagurus and Asmirei, of Ptolemy. But a more full illustration of this point, would be better adapted to ancient geography. Suffice it here to observe, that till the learned labours of D'Anville illustrated the actual geography of these regions, a similar obscurity prevailed even in that of Greater Bucharia; not a century having yet expired since the real form of the Caspian sea, and even the existence of that of Aral, became known in Europe. Nay, it is deeply to be regretted that even now the geography of these regions is chiefly conjectural, and founded on the dubious longitudes and latitudes of oriental geographers, unaccustomed to the precision required in modern observations.

Modern Geography. As few materials will arise for a description of the present state of Independent Tatary, a country exceeding the German empire in extent, it may not be uninteresting to offer some observations on the modern geography of this country, which, to the disgrace of science, remains in a wretched state of imperfection.* The natural and unavoidable connection between the ancient Scythias on both sides of the Imaus, and in later times between western and eastern Turkistan, Great and Little Bucharia, will authorize and demand some previous acquaintance with the latter country, though recently subjugated by the Chinese, and briefly included in the description of that empire.

Little Bucharia. The north-western province of China, called Shen-si, presents a remarkable district, narrow, but of considerable length, extending like a promontory between the great desert on the north-east, and the Eluts of Koko Nor on the south-west. The great wall is here low, and rudely constructed of turf or hardened clay. At the furthest extremity, and just within the wall, stands the town of Su-teush, followed by the city of Kant-cheou, which has been chosen by D'Anville for the capital of Serica. These parts formerly belonged to the kingdom of Tangut, being a modern addition to China.

Beyond these parts, which are the first approached by the Caravans, several rivers, lakes, towns, and stations, are laid down in maps by the Jesuits, of which there is no account in the voluminous work of Du Halde; as the river Etzinć, with the towns of Ouey-yuen and Chao-maing; and the lakes Sopou and Souhouc. To the west runs another considerable river, the Polonkir, near which is the city of Shacheou, where the river runs into a lake called Hara Nor, or rather Kara Nor, the black lake.

It is sufficiently singular, that while a particular account is given of the region of Hami or Chamil,† yet there is no description of these intervening countries; and though the geography and maps of China itself, be excellent, still the most skilful entertain great doubts concerning those of Mongolia, as well as of Tibet. In the table of longitudes

* That of eastern Tatary, or the country east of Hami, may be considered as sufficiently authenticated, not only by the Chinese atlas and Russian maps, but by numerous travels of the Jesuits, published by Du Halde.

† Du Halde, iv. 31.

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and latitudes, at the end of Du Halde, Hami is placed in 42° 53′, long. 22° 23′ west of Pekin; but none appears of the other names above mentioned, and it is probable they are only laid down from doubtful itineraries. Major Rennell has expressed a suspicion that the maps are erroneous concerning the countries between Great Bucharia and China, which he supposes to recede in them too much from Great Bucharia rowards China;* but when he infers, in the preceding page, that the city of Cashgar should be removed several degrees to the north-west, near Shash, he forgets the difficulties that will arise in arranging several itineraries, and the doubts whether Cashgar itself be not merely another name of Yarcand, derived from the kingdom, as the city of Cashmir is only another name for Sirinagur.† However this be, it is probable that there is some confusion in the jesuitic maps, in which Hami is put at ninety leagues from the Chinese wall, while Goez says that he travelled the space in nine days, which on this calculation can scarcely equal that length, as thirty miles a day seems too much for a caravan, especially when we consider that twenty days are occupied in travelling from Chalish, also called Olug Yulduz, or Great Yulduz, to Puchan, not far from Turfan, a space which in our maps, does not occupy above half the extent between Hami and the Chinese wall.‡ If the numbers be not corrupted in the account of Goez, our maps are here strangely erroneous. Is it not probable that similar errors may prevail towards the south, where the river Polonkir, &c. may be too much approximated to China? May not Shacheou be the same with the Siartiem of Polo, or Sertem, while the black lake corresponds with

* Memoir, 198.

† Petis de la Croix, intimately acquainted with oriental geography, informs us, in his notes to the history of Timur, that Cashgar is only another name for Yarcand, which last alone is mentioned in recent accounts as the capital of Little Bucharia. Abulfeda says that the town of Cashgar is also called Ardukand, which implies that it is the same with Yarcand.

But this idea seems completely overturned by the letter of the Chinese general, who conquered Little Bucharia in 1759, to the Emperor, a translation of which is published by the abbe Grosier, in his General Description of China, i. 183, where he refers to the Historie Generale de la China, tome xi, for an account of this remarkable war. From this letter it is evident, that Hashar or Cashgar, is a distinct city from Jerkim, or Yarkand. Two Portuguese jesuits were employed to take a map of these countries; and if a copy were remitted to Europe, it might prove a valuable accession to geography.

The Chinese general says there are about 60,000 families in the district of Hashar, by which he seems to imply Little Bucharia, with 17 cities and 1600 villages and hamlets. The city of Hashar is distant from Su-cheou, the most north-west town of China, about 600 leagues, (this exceeds the space in our maps by about 300 miles, and seems to confirm the Russian geography,) and is about a league in circumference; but the families were only 2500. To the east of Hashar are Ouchei (the Ukz of Islenieff, the Utschferment of Stralemberg) and Aksou; and to the west of Hashar is Antchien, the Adshian of Islenieff, on a river which joins the Sirr not far from its source; but the cities between them are unknown to our maps. "Hashar is to the north of Jerkim; between them lie two cities and two villages, which, together, contain almost 4400 families." The soil is represented so poor as only to yield five for one. The whole letter is extremely curious and interesting, and such as an intelligent English or French general might have written.

‡ See the Collection of Astley, vol. iv.

Cas Nor? but the itinerary given in the jesuitic map of Tibet, militates against this opinion, which must remain dubious till a more precise investigation.

Equal doubts prevail concerning the south of Little Rucharia, where the sandy desert of Cobi has been extended to the west, even to the northern snowy mountains of Tibet; which, by a singularity unknown to any range of that nature, are supposed to emit no rivers from their northern sides. It has on the contrary been shewn, in the account of Tibet, that this country extends for more than a month's journey to the north-east of Cashmir; so that its northern mountains are the Mus Tag, or Mountains of Ice, in the Russian maps, which send forth numerous streams into southern Bucharia*. In his learned map of Asia, D'Anville has placed between Tibet and Little Bucharia, the country of Turk-hend, or perhaps Turk-Hind, being that country of the Turcomans which bordered upon Hind or Hindostan, in which last Tibet may have been laxly included. The southern part of Little Bucharia contains several large provinces, as Koten and Kereja or Karia, so called from their capital cities; and the intelligent Stralenberg has denominated Koten a kingdom, and inserted several names of rivers and towns.

The western and northern parts of Little Bucharia are known with far more accuracy from various accounts, and from the maps of D'Anville and Islenieff. To avoid the difficulties of sandy deserts, rendered almost impassable by broken rocks, the caravans proceed to Hami by a circuit to the north; where, at the bottom of the mountains of Alak, which afford some protection from the piercing cold, stand the cities and towns of Little Bucharia, in all its features one of the most singular regions in the world. In some instances Islenieff appears to have copied D'Anville; but in general his map is new, and more authentic; for example, in the shape of Lok Nor, and the rivers flowing into it, with that of Bulanghir on the eastern side.† The largest river, that of Yarcand, is represented as passing through the deserts, nearly in a straight line, of not less than 750 versts, or about 500 English miles, but this uniform course through a rocky desert is one of the problems of Bucharian geography.

* Islenieff says, in the short memoir of his map, (4 pages 4to.) "Les montagnes indiquées au bas de la carte par le nom de Moustagh, sont celles qui forment la frontiere septentrionale de l'Inde, et produisent les sources du Gange et de l'Inde." From this memoir we learn that the country of the Kalmuks is laid down from plans by Russian engineers; but some other parts from the Chinese maps, that is, Du Halde's atlas.

† There is vehement reason to suspect that this *Bulanghir* is the *Polonkir* of the jesuitic maps, which would confirm the suspicions before expressed; but in this case Hara Nor must be the same with Lok Nor. Major Rennell's idea would be confirmed, as to this part being placed too near to China; and the country between Koko Nor and Hami must be filled by the desert of Cobi, which certainly passes between Hami and China. Du Halde, iv. 31. Rennell says that the Russian maps extend their longitude four or five degrees too far to the east; but if Hara Nor be Lok, the jesuits have erred by about three and an half degrees of longitude, which in lat. 42° is about 157 miles, a trifle indeed in the wide expanse of Asia. By D'Anville's map from the jesuits Hara Nor is 111° 30' from Ferro, while he coincides with Islenieff in placing Lok about 108°.

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Towns. The chief towns, by all accounts, are Cashgar and Yarcand, followed towards the north-east by Axu or Aksu; Chialish, also called Yulduz, and by the Turks Karasher or the black city;* and Turfan. Hami or Camil, with its surrounding villages, is rather considered as a detached province, for some ages under the protection of China. The names of many other towns may be found in the Travels of Goez, who proceeded north from Cabul to Balk; and after a long journey in that direction passed the mountains of Imaus, and arrived by Tanheter and Yakonith at Yarcand.

History. Little Bucharia was subject to the Kalmuks, who were recently conquered by the Chinese. In more ancient times, as already explained, it was the country of the Seres; but little known till the time of Zingis, after whose death it became the portion of his son Zagathai, and appears, with Great Bucharia, to have been called by his name; which was, however, chiefly restricted to Great Bucharia, while the other was styled Cashgar. It was considered as a part of Mogulistan, or Mongolia; and the northern provinces belonged to the country of Geté, in which, to the north-east of Turfan, were the ancient habitations of the Eygurs or Ugurs, a Finnish race who spread dismay throughout Europe in the tenth century, and afterwards settled in Hungary. The state of this country in the time of Timur may be seen in the history of that prince, a descendant of Zagathai; and this race appears to have continued till 1683, when the Eluts or Kalmuks conquered Little Bucharia.† The late wise and benevolent emperor of China, Kiang Long, or Chen Lung, had imitated his predecessor in repeated visits to Mongolia, in order to overawe the Kalmuks, the most dangerous neighbours of the empire, by the display of superior power. In 1759 he completely vanquished these people, whose Contaish, or Great Khan, used to reside at Harcas, upon the river Ili; and thus annexed a vast territory to his dominions, while he is doubtfully said to have advanced as far as Badakshan in the south of great Bucharia. But he did not choose to provoke the jealousy of Persia, or Russia, by extending the limits of the empire beyond the mountains of Belur. It is however asserted that the great horde of Kirguses has paid homage to China. Independently of the regions to the north, the extent of Little Bucharia, as it is absurdly named, from the confines of Hami to the mountains of Belur, is more than

* Strahlenberg tells us that Chialish is the same with Yulduz, and so de la Croix, ii. 56, and no travels nor description will permit the latter city to correspond with Oramshi, an opinion which D'Anville seems to have adopted in his Asia, 1751, but abandoned in his ancient geography, 1769. Aksu, in the time of Timur, had three strong castles, and was full of Chinese merchants. Cheref. iii. 216, where the reader will find a curious campaign in Little Bucharia. The mountain Carangoutac seems to be the Mus Tag, not the Belur.

† To the Dutch edition of Du Halde's atlas, 1737, there is prefixed an account of Little Bucharia, chiefly occupied by a detail of that revolution. An account of this country had appeared at Cologne, 1723 (perhaps the same). By the industrious compiler of Astley's voyages it is said to have been written by Bentink, who wrote the curious notes on Abulgazi; but by far the most complete account of this country is given in the fourth volume of Astley's collection, the best of that kind ever published, and which gave rise to thy French Histoire generalle des Voyages.

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1000 British miles; and the breadth, from the mountains of Tibet to those of Alek, more than 500.

Religion. The prevailing religion is the Mahometan, for the Kalmuk conquerors, though they retained their idolatry, were tolerant. The government was administered by a Khan, and afterwards by the Contaish of the Kalmuks, who appointed officers acting as magistrates. The population cannot be extensive,* and is supposed chiefly to consist of original Bucharians, who are described as of a swarthy complection, though some be very fair and of elegant forms. They are said to be polite and benevolent, and their language is probably that called the Zagathaian, which is the same with the Turkish, that speech having supplanted their native tongue; which, if they be descended from the Seres, would be a curious topic of investigation. For that the chief population is original seems to be allowed, though there be a great mixture of Tatars, or Turcomans, and a few Kalmuks.†

Manners. The dress of the men does not reach below the calf of the leg, with girdles like the Polish. The female raiment is similar, with long ear-rings, like those of Tibet: the hair is also worn in very long tresses, decorated with ribbons. They tinge their nails with henna. Both sexes wear trowsers with light boots of Russia leather. The head dress resembles the Turkish. The houses are generally of stone, decorated with some Chinese articles. They follow the custom of the times of chivalry, in throwing off all clothing when they go to sleep; are cleanly in their food, which often consists of minced meat; and like the Russians they preserve their victuals frozen for a considerable time. Tea is the general drink. The wives are purchased; and the ceremonies of marriage, &c. differ little from those of other Mahometans, the Mullahs, or priests having great influence. They have small copper coins; but weigh gold and silver like the

* The account in Du Halde's atlas bears that the Contaish could raise 20,000 men from this province, taking only one man from ten families. Hence 200,000 families, which may yield a population of one million.

† The learned Jenisch gives a specimen of Turkish and Zagathay, which proves them to be the same; and he finds very little difference between the modern Turkish and the dialect of Crim Tatary. In pure Turkish all infinities end in *mak* or *mek*; the construction of the language is sufficiently simple; ablatives are formed by adding *den*, plurals by adding *ler*, whether the nominative be a word originally Turkish, or borrowed from the Arabic or Persian. (From a Letter of that great orientalist, Sir William Ouseley, to the Author.)

Mr. Wilford tells us (As. Res. vi.) from the report of Mogul Beg, probably a Mahometan merchant, that the traders who travel regularly from Cashmir, Nurpoor, &c. to Yarcand, assert that the inhabitants of the *countries between Ladac and Yarcand* use the Turcoman language, till within a few days of Yarcand, where the Kalmuk prevails. In the Turcoman *Ac* signifies white, and *Cara* black.

They meet at Ladac, whence they travel the greatest part of the way along the Indus, which rises in the mountains to the north-west of Yarcand, (query south-west,) then running south it comes within two days of Ladac, where, suddenly turning to the west, it takes an immense sweep towards Saighur, probably the Sheker of the maps, where it changes its course towards the confines of India.

It is to be regretted that Mr. Wilford did not give us more information of this kind, instead of antiquarian reveries.

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Chinese, with whom they maintained a consderable commerce before the Kalmuk invasion, and which is now probably more productive than ever by their union under the same sovereign. They are not warlike; but use the lance, sabre, and bow, while the rich have coats of mail.* The country is very productive of many kinds of fruits, and particularly wine. They are said to have many mines of gold and silver, but neither the natives nor Kalmuks had sufficient skill to work them: on the melting of the snows abundance of gold is found in the torrents, which they carry to China, and even to Tobolsk in Siberia. Precious stones, and even diamonds, are also found; and one of the products is musk, probably from the southern mountains near Tibet, in which last country the animal abounds. In contradiction to the usual course of nature, the southern part bordering on the vast Alps of Tibet is colder than the northern, which is protected by the inferior ridge of Alak. As the dress is chiefly cotton it is probable that the plant abounds in the country, though from their proximity to China the Seres may easily have handed silk to ancient Europe.†

Such are the chief particularities concerning this interesting country to be collected from the accounts above quoted. Dr. Pallas, in his travels in Russia, gives some idea of Bucharian commerce, in describing the city of Orenburg.‡ But as he joins the Bucharians with the people of Khiva, he probably implies Greater Bucharia. He seems to mention raw silk as a product of the country, as well as lamb skins of a remarkably fine kind, and the hair of camels.‖

* M. Bentink, the learned author of the notes on Abulgazi's work, informs us, p. 810 and 811, that the natives of Great and Little Bucharia are a peculiar race, by the Tatars called Tadfiks, or Citizens; and are an elegant people with black eyes, aqualine noses, snd pleasing countenances, totally different from the Tataric; the women being tall, well made, and beautiful. They subsist by handicrafts and commerce, in which they are unmolested by the Uzbeks and Kalmuks, the Bucharian merchants crowding to China, Hindostan, Persia, and Siberia. They never handle arms, whence they are despised by the Tatars, to whom each town and village pays a regular tribute; nor are they divided into tribes, like the wandering nations of the east.

† Marco Polo specially informs us that the province of Peim produced silk in abundance, "abundant bombyce." Lib. i. Cap. xlii.

‡ Dec. Russ. iii. 123.

‖ He observes that, before the Chinese conquest, the Kalmuks could muster an army of 50,000, their territories extending from the lake of Balcash, or Palkati to the mountains of Bogdo, which unite those of Altai and Alak, and served as a frontier against the Monguls, peculiarly so called. On the south their power reached over the towns of Bucharia as far as Chochar; but their chief habitations were near the Palkati and river Ili, and towards the sources of the Irtish, in the angle formed by the mountains of Alak and Altai. This country is by the Russian writers generally termed Soongaria. In another passage (v. 422.) he informs us that the best rhubarb was brought to Kiachta, one of the Russian staples with the Chinese, by a Bucharian merchant called Abdusalem of the city of Selin, situated south-west of Koko Nor, towards Tibet, (perhaps Sinin, east of Koko Nor,) and he adds, that this and other towns of Little Bucharia, such as Cashgar, Yarcand, and Otrar, are under the Chinese domination. It is truly surprising that so intelligent a writer should have been so ignorant of geography. But as it thus appears that the people of Bucharia supply the best rhubarb, it is to be inferred with probability that it grows in the south-east part of that country.

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CHAPTER II.

DESCRIPTION OF INDEPENDENT TATARY.

KIRGUSES.—STEPP OF ISSIM.—HORDS.—NUMBER.—MANNERS.—DRESS.—TRADE.—HISTORY.—KHARIZM.—NAME.—KHIVA.—TRADE.—GREAT BUCHARIA.—NEPHTHALITES.—EXTENT AND BOUNDARIES.—HISTORY.—RELIGION.—MANNERS AND CUSTOMS.—PROVINCES.—CITIES.—MANUFACTURES.—CLIMATE.—RIVERS.—LAKES.—MOUNTAINS.—MINERALOGY.—CHARACTER OF THE PEOPLE.

KIRGUSES. ABOUT one half of Independent Tatary is occupied by the Kirguses in the north, a people also called Kaizaks, and of undoubted Tataric origin, whence they seem to live in perfect amity with their southern brethren, the Uzbeks.

STEPP OF ISSIM. The great stepp, or desert of Issim, divides these Kirguses from Siberia. This stepp is intersected by a river of the same name; and there are other streams which join that river, lost in the sands, or fall into extensive lakes, for the most part either saline or bitter.* Even the soil is impregnated with salt or nitre, which Pallas supposes to proceed from the ranges of secondary mountains, which extend along the river till it joins the Irtish. A more considerable chain stretches from the river Yaik, or Ural, towards the Altaian range, called the mountains of Algedym Zano. The mountains of Ural, otherwise called those of Aral, or eagles, though they chiefly bend south-west, detach some branches towards the sea of Aral.† On the east the great chain of Altai may be considered as beginning with Uluk Tag, or the Great Mountain, towards which a route of General Bentam is delineated in Arrowsmith's map of Asia, while the Kisik Tag, or Little Mountain, runs south towards the Palkati lake, which is also called that of Tengis, and Balcash. When Pallas visited this stepp, in 1771, the Russians were improving the fortified line on the north of this desert, which is remarkable for proceeding through a series of small saline lakes. This extensive plain must not however be regarded as a mere desert, destitute of all vegetation; and it is said that many ancient tombs occur in its wide expanse, as well as in the Barrabinian stepp, between the Irtish and the Ob, which last consists of a tolerable soil, and presents several forests of birch, with the appearance of having been formerly a prodigious saline marsh.

On the west of the Kirguses there still remain some tribes of Kalmuks, though the greater part migrated from the Volga in 1770,

* Dec. Russ. iv. 456. Pallas calls it the stepp of Isett.

† Pallas, ib. p. 74, says that the Uralian chain terminates, in the south, in secondary hills, some stretching west, others south to the sea of Aral, and some east towards the Altaian chain.

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when they sought the protection of the Chinese. The Kirguses are supposed to be so called from the founder of their hord; and have from time immemorial been here classed under three divisons of Great, Middle, and Lesser, though quite unknown to Europe till the Russian conquest of Siberia, some tribes becoming subject to that empire in 1606.* They are considered as faithless, pusillanimous, yet restless; but the Great Hord, defended by mountains on the south and east, asserted their independence in repeated contests with the Kalmuks of Soongaria. The Middle and Little Hords have acknowledged the Russian sovereignty since 1731; but this subjection is merely nominal, for the Russians are obliged to fortify themselves against these allies. These two hords are each estimated at thirty thousand families; and supposing the Great Hord to contain sixty thousand, and each family six persons, the population of this wide region might amount to 720,000; but it probably does not exceed half a million.

MANNERS. The Kirguses have gradually moved from the east towards the west. Their manners, common to the Tatars, have been described at considerable length by Pallas.† Their tents are a kind of felt; their drink kumiss, made of acidulated mare's milk, for that of cows is unpleasant. The Great Hord is considered as the source of the two others. Being settled near the mountains of Alak, also called Ala Tau, (and considered by the Russians as forming one chain with Belur, which joins the mountains of India) this hord has been called the Alatanian Kirguses.‡ They lead a wandering life, from the borders of the upper Sirr, or Syrt, near Tashkund, to the stepp of Issim. Each hord has its particular Khan; but the Middle Hord, when Pallas approached this country, was contented with a Saltan, or prince, who seemed to acknowledge the Khan of the Lesser Hord: and in 1777 this Khan of the Lesser Hord, whose election had been confirmed by Russia, was called Nur Hall, a sensible and equitable prince. Their features are Tataric, with a flat nose and small eyes; but not oblique like those of the Monguls and Chinese. They have horses, camels, cattle, sheep, and goats. It was asserted that some individuals in the Middle Hord had 10,000 horses, 500 camels, 3 or 4000 cattle, 20,000 sheep, and more than 2000 goats: while in the Lesser Hord were proprietors of 5000 horses, and a proportional number of other animals. Their dromedaries furnished a considerable quantity of wooly hair, which was sold to the Russians and Bucharians, being annually clipped like that of sheep. Their chief food is mutton, of the large tailed sort; and so exquisite is the lamb that it is sent from Orenburg to Petersburg for the tables of the palace. The lamb skins are the most celebrated after those of Bucharia, being damasked as it were by clothing the little animal in coarse linen. But the wool of the sheep is coarse, and only used in domestic consumption for felts and thick cloths. The stepps supply them with objects of the chace, wolves, foxes, badgers, antelopes, ermines, weazels, marmots, &c. In the southern and eastern mountains are found wild sheep, *ovis musimon*, the ox of Tibet, *bos grunniens*, which seems to delight in snowy alps; with chamoys, chacalls, tigers, and wild asses.|| This variety of animals, enumerated

* Tooke, ii. 78. † Dec. Russ. iii. 375. ‡ Ib. iii. 379. || Ib. iii. 396.

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by a good judge of natural history, not only shews the continuity of the range of mountains from Tibet towards the north, but affords a specimen of the treasures of natural history, which might be found in the mountains of Bucharia.

Dress. As the Kirgusians regard each other as brethren, they are obliged to employ slaves, being captives whom they take in their incursions. Their dress is the common Tataric, with large trowsers and pointed boots. A thin vest supplies the place of a shirt, and they commonly wear two short robes. The head is shaved and covered with a conic bonnet. Their clothes are numerous and light, so that if they fall from horseback they are seldom hurt: their saddle horses are richly ornamented; but their riders are short in stature, and their trowsers ascend to the arm pits, so that they resemble a pair of pantaloons on horseback. The ladies ornament their heads with the necks of herons, disposed like horns. They appear to be Mahometans, though rather of a relaxed creed.

Trade. The Kirgusians carry on some trade with Russia. The chief traffic, which is wholly by exchange, is at Orenburg, but the Middle Hord proceed to Omsk. Sheep, to the amount of 150,000, are annually brought to Orenburg; with horses, cattle, lambs, skins, camel's-wool, and camblets; sometimes they offer slaves, Persians or Turcomans. In return they take manufactured articles, chiefly cloths and furniture. From Bucharia, Khiva, and Tashkund, they receive arms and coats of mail, which Russia refuses, in return for camels and cattle. They are extremely fond of the Kalmuk women, who long retain their form and charms; and often marry them if they will adopt the Mahometan religion. There is an annual festival in honour of the dead. About the beginning of the seventeenth century this people, who were formerly Shamanians, became children of circumcision, by the exertions of the priests of Turkistan; but Pallas, in 1769, found them addicted to sorceries and other idle superstitions.*

History. Even this barren region, now inhabited by the Kirguses, has been the scene of considerable events; and it is not improbable that its numerous deserts and plains may formerly have been more fertile, at least in pasturage. The gradual desiccation, observed in the southern stepps of Siberia, may warrant the conclusion that the hills and plains, on the north of the Caspian and Aral, anciently presented more numerous streams and richer verdure. However this be,

* Compare Hanway's Travels in Persia, i. 239, who mentions Tashkund as the south-east boundary of the Kirguses, thus excluding Fergana. He confirms the account of their Mahometanism; and his description of their manners may be compared with that of Pallas. The east side of the Aral, which is high and rocky, inhabited by the Karakulpacks, and other Tatars having a general resemblance of the Kirguses. He computes the circumference of the Aral at 1000 British miles, or thirty-five days journey. His Jolbart seems to approach the royal tiger, if not a Tataric fiction. The narrator gives an account of the old channel of the Oxus, through a valley full of brushwood, and knee deep in stagnated water: and from p. 90 it appears that the Oxus, or at least a branch of it, formerly ran into the bay of Balkan, while another passed north by Urghenz. But it is probable that this large river always extended one or two branches to the sea of Aral.

In Astley's Voyages, iv. 536, this country is called Turkistan, being bounded on the south by Kharizm and Great Bucharia.

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these regions have been held by successive nations of high repute, from the Massagetæ of early times to the Turks. These last imparted the name of Turkistan, having migrated from their habitations near the mountains of Bogdo, adjoining to those of Altai, or the mountains of gold. In the sixth century these Turks, a grand branch of the Tatars, or Huns, had already spread to the Caspian; while the Eygurs seem to have succeeded in their original seats. They soon after subdued the people of Sogdiana, and the Nephthalites of Great Bucharia, called in that ignorant age White Huns. As the Turks founded their first western settlements in the regions now held by the Kirguses, they thence received the name of Turkistan; the capital city being Otrar, and sometimes Taraz, also called Turkistan. From this centre of their power issued those Turkish armies, which have changed the destinies of so many nations. Little Bucharia was called Eastern Turkistan from a similar cause; but appears to have been first subdued by the Turks of Cathay on the north-west of China. The Turks and Huns may be considered as one and the same Tataric race, totally unknown to Europeans till the appearance of the latter, who first passed the stepps, deserts, and mountains which had concealed them from classical observations till the fourth century. The Huns, who appeared about A. D. 375, by their peculiar features impressed the writers of the time as a new and unknown race, having seemingly passed in one course of depredation from Asia to Europe; while the Gothic and Sclavonic nations had left many of their settlements vacant, in their progress into the Roman empire. But the Turks, though originally the same people, perhaps warned by the fate of their brethren, made a slow and gradual progress; and appear to have been mingled by marriages and conquests with the Sclavonic and Gothic tribes, on the north and east of the Caspian. Such was the origin of the name of Turkistan; from which the Turks spread desolation over the most beautiful countries of the east, and even threatened the liberties of Europe.

KHARIZM. Before proceeding to Great Bucharia, it may be proper briefly to describe the country of Kharizm, which extends from the Gihon or Amu to the Caspian sea, bounded on the north and south by wide deserts, the chief town being now Khiva, but anciently Urghenz. This country is about 350 British miles in length and breadth, and in the time of Zingis was a powerful kingdom, but at that time included Corasan, and a part of Great Bucharia. As Ptolemy has confounded the course of the rivers, and the appearance of the Caspian, it is difficult here to trace the real positions, but D'Anville supposes that this country was the Chorasmia of antiquity, and he supposes Corasan to have been the seat of the Parthians. In the tenth century Ebn Haukal calls this country Khuarezm, and says that the river Gihon flows into the lake of Khuarezm, while he terms the Caspian the sea of Khozr.* As that geographer had travelled in Great Bucharia, there is reason to conclude that the river Oxus or Gihon had, in all ages, its chief efflux into the sea of Aral; and only sent off inferior branches,

* He also specially names Corasan, (Khorasan, p. 240.) and warns his reader not to confound it with Khuarezm.

in the manner of a delta, into the Caspiah; for it is thus clear that the accounts concerning the recent change of its course by the Uzbeks are erroneous; not to mention the improbability that a river, which runs about 850 British miles, and is fed by such numerous streams, issuing from the mountains of perpetual snow, should become thus inconsiderable.

The Russian travellers employed by the late empress unhappily did not visit the eastern shore of the Caspian, Great and Little Bucharia, and the country of the Kalmuks of Soongaria. But as frequent caravans pervade most of these regions, it is matter of surprise, as well as of regret, that no European traveller has explored their recesses, and that their geography remains in so imperfect a condition. It seems indubitable that in Kharizm, as perhaps in many parts of Persia, the deserts have greatly increased; and if they proceed from the decomposition of hills of sand stone, this consequence must unavoidably follow. We may conclude that the Greeks and Romans were almost entirely ignorant of the eastern shores of the Caspian, and of the lake of Aral; though from the west they had some faint accounts of the Volga, and other rivers which flow into the north of that sea. Hence the encroachments of the desert on the kingdom of Kharizm cannot be computed from their accounts, but may be estimated from the historians of Zingis and Timur.

Khiva. At present this state is almost restricted to the district of Khiva, the circuit of which may be performed on horseback in three days; but there are five walled cities, or rather towns, within half a day's journey of each other.* "The khan is absolute, and entirely independent of any other power, except the Mulla Bashi, or high priest, by whom he is controled. The Kievinski Tartars differ very little from the Kirgeese; but surpass them in cunning and treachery. Their manners are the same, only that the Kirgeese live in tents, whilst the others inhabit cities and villages. Their only trade is with Bokhara and Persia, whither they carry cattle, furs, and hides, all which they have from the Kirgeese and Turkoman Tartars, who often prove very troublesome neighbours to them. The place itself produces little more than cotton, lamb-furs of a very mean quality, and a small quantity of raw silk, some of which they manufacture."† The same author informs us that the town of Khiva stands on a rising ground, with three gates, and a strong wall of earth, very thick, and much higher than the houses: there are turrets at small distances, and a broad deep ditch full of water. It occupies a considerable space, and commands a pleasant prospect of the adjacent plains, which the industry of the inhabitants (he probably means the natives, not the Tatars) has rendered very fertile; but the houses are low, mostly built with mud, the roofs flat, and covered with earth.

Urgheng. The city of Urgheng was in ruins, only a mosk remaining. The most southern town in the dominions of Khiva is Azarist, or Hazarasp, which adjoins to the great desert called Kara kum,

* Hanway i. 241 The inhabitants are Turcomans and Uzbeks, besides the *Sarts*, perhaps another name for the Tadjiks. Bentink, p. 515.

† Ibid.

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or the Black Sands, for the deserts of central Asia are commonly of a black sand, with which the river Indus above Attock is impregnated, while those of Africa are red; both colours probably proceeding from a mixture of that universal metal, iron, in the particles of quartz, which constitute sand.

Khiva is said to stand at the distance of seventeen days from the Caspian sea, and from Orenburg thirty-three, computing the day's journey forty wrests*. In 1739 the khan of Khiva assembled an army of 20,000, to oppose Nadir, but the city surrendered at discretion.

Pallas informs us that the people of Khiva bring to Orenburg considerable quantities of raw cotton†. But the coasts of the Caspian are held by some remains of Turkomans in the north, and by Uzbeks in the south. The bay of Balkan is visited by Russian vessels; the isles yield rice and cotton, and one of them, Napthonia, a considerable quantity of naphtha, the bed seeming thus to pass the sea from Baku in a south-east direction; but they are inhabited by Turkoman pirates.

Trade. A more considerable trade is maintained with Mangushlak, which our maps represent as standing at the egress of the river Tedjen; but according to the learned Wahl, that river, and another which flows by Meshid, are received by an inland lake, the Kamysh Teshen, on the south of the bay of Balkan; a circumstance which seems to be confirmed by the chart of the Caspian published by Hanway, in which the mouth of the Tedjen does not appear‡. To the north of the large bay of Balkan are the lake of Karabogas and another inlet, which is followed by the port of Alexander or Iskander.

As the merchants of Khiva brought gold and gems to Astrakan, probably from the two Bucharias, an idea was suggested to Peter the Great that these precious products were found in Kharizm, and he in consequence attempted a settlement. But the Russians to the number of 3000, advancing under the command of a Circassian prince called Beckawitz, towards Khiva, were all cut off by the Uzbeks||. It has been said, that upon this occasion these Tatars changed the course of the Khesel, which formerly fell into the Caspian**; but as this river is on the east of the Gihon, it is clear that it could not pass that river to join the Caspian; and we have already seen that the Gihon in the tenth

* Equal, by Hanway's account, to twenty-seven British miles: hence the distance of Khiva from the Caspian, would be 459 British miles, while our maps scarcely allow 300. That of Wahl seems more agreeable to Hanway's account.

† Dec. Russ. iii. 123.

‡ Wahl, probably after D'Anville, places Mangushlak far to the north, near the Dead Gulf, in the country of the Mankats, called Karakalpaks by the Russians. The map of Russia, 1787, gives the gulf of Mangushlak on the north of cape Kalagan. Col. Bruce can deserve no credit in opposition to all the Russian accounts.

|| Hanway, Col. Bruce, and Bell, all vary in their account of the circumstances, and evince how idle it would be to alter maps on the reports of any single traveller.

** Astley, iv. 477: but that work, an amazing labour for one man, is not free from mistakes. See Ebn Haukal, p. 210—244, for a curious account of Kharizm, in the tenth century, from which it appears that streams or branches ran from the Gihon near Hazarasp, which probably ended in the suppo

century flowed into the Aral. It is not improbable that before the deserts encroached on Kharizm, one or two rivers may have run to the Caspian from the east; or perhaps these fables may arise from one or two small branches of the Amu having joined that sea. As the larger rivers chiefly belong to Great Bucharia, they are reserved for the description of that country.

The history of Kharizm has been ably illustrated by its king, or khan, Abulgazi, in his general history of the Tatars written about 1660. He was born in 1605, and elected khan 1643, after a long imprisonment in Persia. He died in 1663, revered as an excellent prince, and a man endowed with the rarest qualities.

GREAT BUCHARIA. By far the most important part of Independent Tatary is comprised under the name of GREAT BUCHARIA, generally supposed to have originated from the city of Bokhara, the first which the Persian merchants entered on visiting the country. It is part of the Touran of the ancient Persians, and was chiefly known to the Greeks and Romans by the names of Sogdiana and Bactriana; the former being the Maweralnahar, or country beyond the river, of oriental geography; while Bactriana corresponds with Balk, and thus belongs to Iran not to Touran. From the second son of Zingis it received the name of Zagathai.

NEPHTHALITES. By the Byzantine historians the people are called Ephthalites, or corruptly Nepthalites, a name derived from the Oxus or Amu, by the Persians styled Abtelah, or the river of gold. Those Byzantine writers, who affect to imitate classical language, call the Ephthalites White Huns; as with them all the eastern barbarians were Scythians or Huns: whence their accounts require constant elucidation from the Chinese and other oriental memorials, and particularly from the exact account of the nations in northern Asia, which has been given by Pallas, and other recent travellers.

EXTENT AND BOUNDARIES. Great Bucharia extends more than 700 British miles in length from north to south, by a medial breadth, if Fergana be included, of about 350, thus rather exceeding Great Britain in size, but much inferior to the country called Little Bucharia. The northern boundary appears to be the mountains of Argun; but Islenieff seems to restrict it to the river Syr or Sihon, ascending, however, with that river on the north-east, where it borders with Kharizm. On the western side a desert, the river Amu, and other deserts, divide Bucharia from Kharizm and Corasan; while on the south and east the mountains of Gaur, or Paropamisus, the Hindoo Koh, and the chain of Belur, are perpetual barriers*.

The original population of this country was Scythian, like that of Persia; and the natives are still denominated by the same Tataric term of Tadjiks; which the barbarous victors assigned to the Persians.

mouths of that river in the Caspian. He says the sea of Kharizm is 400 miles in circuit, and besides the Gihon receives the Chaje, that is the river of Shash or the Sihon; p. 265.

* The northern part of this chain is also named Terek; and Wahl restricts the name of Belur to the middle, while he calls the southern part which joins the Hindu Koh, Alak, or Divlaran, or Siah Humend. Pallas, Dec. Russ. iii. 579, calls this the Alatanian chain, running north from India.

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History. The history of this celebrated country might be traced from the earliest periods, at the seat and source of the most ancient Persian monarchy, the king being engaged in repeated wars with those of Touran, or the Scythians on this side and beyond the Imaus, whose queen Thomyris is said to have slain Cyrus in battle*. But this region became better known, after the progress of Alexander as far as Cojend on the Sirr, inferred with great probability to be the *Alexandria ultima*, and the furthest limit of his course towards the north. The history of the Greek monarchy in Bactriana, and of the Grecian colonies in Hindostan, may be traced in the learned work of Bayer. After the Mahometan conquest of Persia in the seventh century, the history of this country becomes sufficiently clear, and the historians of Zingis and Timur throw a steady light, which is continued by Abulgazi. In 1494 Sultan Baber, a descendant of Timur, was, with his Monguls expelled from Great Bucharia, and proceeding into Hindostan, there founded the Mogul power. The Tatarian victors, called Uzbeks, established a powerful monarchy in Bucharia; and successive khans held the sceptre from 1494 to 1658, soon after which period this great and fertile country appears to have been divided into several dominations, under numerous khans. In 1741 the city of Bokhara, with a small territory around it, constituted all the monarchy of one of these khans†. Nadir first distinguished himself in Corasan, in combats with the Uzbeks. The province of Gaur, as already mentioned, is subject to the kings of Candahar, but Balk and Samarcand appear to remain subject to their own Uzbek khans. In the deficiency of recent accounts, it can only be conjectured that the chief powers of this country are the khan of Balk in the south, and of Samarcand in the north.

Religion. The religion of the Uzbeks and Bucharians is the Mahometan of the Sunni sect, and the government of the khans despotic. There is no precise evidence of the state of the population, which consists of the Tatars and of the Bucharians. It is probable that upon an emergency an army might be mustered of 100,000; but though Nadir reduced Bokhara and Khiva, he seems to have respected Balk and Samarcand, considering them as allied states, which furnished him with the best troops in his army: and he even regarded himself as a Tatar, not as a Persian. There is no statement of the revenue of these fertile provinces. From an account published by Hanway of the revenues of Nadir, it appears that Corasan yielded half a million sterling annually, being equal to that of Erivan, and superior to any other Persian province. It is probable that the revenue of Great Bucharia, is at least equal to that of Corasan. Were the kings of Candahar to form any enterprize against our possessions in Hindostan, an alliance with the khans of Bucharia might prove more useful than with western Persia.

Manners and Customs. The manners and customs of the Uzbeks are similar to those of the other Tatars: but they are supposed

* The Massagetæ were a different people, in the plains on the north of the Caspian.

† Hanway, i. 242.

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to be the most spirited and industrious of these barbarians. Though many reside in tents in the summer, yet in winter they inhabit the towns and villages. They are however, addicted to make sudden inroads into the Persian provinces. Those of Balk are the most civilized, and carry on a considerable trade with Persia and Hindostan. The native Bucharians, or Tadjiks, are comparatively fair: and correspond, in elegance of form and features, with those of Little Bucharia, whom they also resemble in the mode of dress*. The Bucharians, as before mentioned, never bear arms. The Uzbeks, on the contrary, are no strangers to the use of the musket; and it is said, that even their women, who surpass those of the other Tatars in beauty, are not averse to warfare, but will sometimes attend their husbands to the field. The language is Zagathaian, that is Turkish or Turkomanic; but that of the Bucharians, a curious topic, has never been investigated, though it be probably Persian, like their physiognomy, but intermingled with Turkish, Mongolian, and even Hindoo terms. The literature of Great Bucharia would furnish an ample theme, Samarcand having been a celebrated school of oriental science, cultivated even by monarchs, as Ulug Beg and others: it was still, in the beginning of last century, the most celebrated of Mahometan universities†.

Provinces. The cities in Great Bucharia generally give name to the provinces, or receive their appellations from them. In the north, the province of Fergana appears, from the map of Islenieff, to be subject to the Kirguses of the Greater Hord: and of Andegan, its capital, there is no recent account. The other chief provinces are the western part of Shash, and a district called by D'Anville, Osrushna, from a town of the same name‡. The most fertile and celebrated province is that of Sogd, so called from the river which pervades it. Next are Vash, Kotlan, and Kilan. Belur is the general name for the Alpine region which divides this country from Little Bucharia; and it seems very dubious if there be any town of that name, though Strahlenberg have introduced it into his map. Tokarestan and Gaur are the most southern provinces. Marco Polo mentions some others, which would require a special dissertation to ascertain; and perhaps the best mode of illustrating that author would be, without any attention to his progress or arrangement, first to specify those parts of his chorography which are certain, and then proceed to discuss the other provinces and cities; for either the copies are sometimes corrupt, or his memory has deceived him in the positions, as he happened to visit them on his route or his return||.

* See the prints in Astley, iv. 433, and the Persia of Elzevir.

† Bentink on Abulgazi, p. 279.

‡ The Setrushteh of Ebn Haukal, p. 261, if the name be right.

|| His Balacia is doubtless the southern part of Balk, from the mountains of Belur to the river Morgab, the region which, as he mentions produces Balay rubies. The chief city is now Bedakshan. See Otter, and As. Res. v. 43. But Baschia, if Vash, is to the north; and Chesimur, undoubtedly Cashmir, must be computed from Balacia, not Bascia. Vocham was four day's journey north-east from Balacia, or about 100 miles towards the mountains of Belur, and is perhaps Kotlan. Chasgar is clearly Cashgar, after passing the Belur Alps. The chapter concerning Samarcand should be placed

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Cities. The chief city of Great Bucharia is Samarcand, on the southern bank of the river Sogd, which at the distance of above a hundred miles, after washing the walls of Bokhara, passes through a considerable lake and is supposssd to join the Oxus or Amu. Milton has used a poetic licence when he says

"From Samarchand by Oxus, Temir's throne."

Of this celebrated capital there is no recent account, but it seems greatly to have declined since the time of Timur, the festivities of whose court, at his palace here, and villas in the vicinity, have been so well described by his Persian historian. Towards the beginning of the last century, Bentink says that Samarcand was fortified with ramparts of turf, the houses being mostly of hardened clay, though some were of stone, from quarries in the neighbourhood. The khan of Great Bucharia commonly encamped in the adjacent meadows, the castle being almost ruinous. The excellence of the paper made of silk recommended it to all the countries of the east: and it is supposed that we derive this invention from Samarcand*. The rich vale of Sodg produced such abundance of exquisite grapes, melons, pears, and apples, that they were sent to Persia and even to Hindostan.

Bokhara. Bokhara, on the same river, has repeatedly contested the metropolitan dignity with Samarcand. When visited by the English agents in 1741, it was a large and populous city, subject to its khan; standing on a rising ground, with a slender wall of earth: the houses of clay, but the numerous mosks of brick†. The citizens manufactured soap and calico; and the chief products were cotton, rice, cattle. From the Kalmuks they received rhubarb and musk; and from Badakshan, the capital of a country so called, they used to receive lapis lazuli, and other precious stones; that city being computed at sixteen day's journey from Bokhara. There was gold and copper coin: and after Nadir took this city, the Persian and Indian silver became common. The inhabitants were civilized, but perfidious. In the tenth century it was distinguished by the manufacture of fine linen; and Ebn Haukal adds that there was in the vicinity a mountain called Zarcah, which passed between Samarcand and Kesh, and thence by the border of Fargana to the confines of Cheen; meaning the Ak Tau, or white mountain.

Balk. Balk is a distinguished city on the river Dehash, which flows into the Amu from the southern mountains of Gaur or Paropa-

after Bascia. Karchan seems Yarcand, or some other city on the west of Koten (Cotam). Peim or Peyn, and Ciartiam, may, if a former conjecture be allowed, be Payan and Shacheou in the jesuistic maps. His town of Lop stands immediately on the west of the great desert five days *backward*, or to the west of Ciartiam. Here all is confusion except Cara Lop be implied. The desert was of thirty days. Sachiou seems to be Soucheou, the first town in China. Dr. Forster, in his voyages to the north, seems often erroneous but his ideas will be found useful by any future investigator.

* This manufacture is said to have been known A. D. 650. Ouseley's Ebn Haukal, p. 300. The same work may be consulted for the state of this great city in the tenth century.

† Hanway, i. 242.

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misus, probably, as in the beginning of the last century, still subject to its particular khan of the Uzbeks; being then the most considerable of all their cities, large and populous, with houses of brick or stone; while the castle or palace consisted almost entirely of marble from the neighbouring mountains. This beautiful city was an object of ambition to the neighbouring powers of Persia and Hindostan; but was secure, not only from their mutual jealousy, but from the difficult access through high mountains on one side, and deserts on the other. The people were the most civilized of all the Tatars, and beautiful silks were prepared from the product of the country, which seems to have included the whole of Great Bucharia to the south of the Amu, which in this part of its course is also called the Harrat. It is the chief seat of the trade between Bucharia and Hindostan.

Other Cities. Zouf, which is also called Gaur, from the province of which it is the capital, is said to be now subject to the kingdom of Candahar; and Bamian, in the same province, must have shared the same fate. The latter city was remarkable for numerous images, and other monuments, carved in the adjacent mountains. Anderab is the chief city of Tokarestan*; near a pass through the mountains of Hindoo Koh, strictly guarded by the khan of Balk. In the neighbourhood of this city were rich quarries of lapis lazuli, a substance with which Great Bucharia seems chiefly to have supplied the ancient and modern world.

Badakshan. Not far to the north stands Badakshan, on the river Amu or Harrat. In the last century this city belonged to the khan of Great Bucharia, or rather of Samarcand; and being secluded in a branch of the Belur Alps, was used as a state prison for rivals or insurgents. Badakshan was small, but well built and populous; and its inhabitants were enriched by the gold, silver, and rubies found in the neighbourhood; the grains of gold and silver abounding in the torrents which descend from the mountains, when the snow melts in the beginning of summer†. Several caravans from Little Bucharia and China pass by this city, but others prefer the route by Little Tibet, on the eastern side of the mountains‡. Ebn Haukal mentions that there were not only mines of rubies and lazulite near Badakshan, but that there was abundance of musk.

Kotlan or Khotlan is the capital of a province so called, but otherwise seems little memorable. Termed, situated on the Amu, is scarcely known in modern accounts: and in general the northern cities seem greatly to have declined under the domination of the Uzbeks.

Manufactures. The chief manufactures have been already mentioned in the account of the cities. Besides the caravans to Persia, Hindostan, and China, some trade is carried on with the Russians, the Bucharian merchants not only furnishing their own products, but others from the eastern countries to which they trade.

* In Ebn Haukal's time it was Taikan, the Taican of Polo, p. 224.

† Pentink on Abulgazi, p. 55.

‡ See the journey of Goez, Astley, iv. 644. To pass to Little Bucharia is thirty-three day's journey to the north, perhaps about the latitude of Andegand or Kojend; but the province of *Sarebil* is a desideratum in geography.

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CLIMATE. The climate in general appears to be excellent, the heat even of the southern provinces being tempered by the high mountains capped with perpetual snow; and though situated in the parallel of Spain, Greece, and Asiatic Turkey, the proximity of the Siberian deserts, and the lofty alps, render the summer more temperate. The face of the country presents a great variety; but though there are numerous rivers, hills, and mountains, there seems to be a deficiency of wood.* Near the rivers the soil is very productive, so that the grass sometimes exceeds the height of a man; and in some parts considerable industry is shewn in the cultivation of rice and other grain. In any other hands but those of the Tatars, this country might rival any European region.

RIVERS. The chief rivers of Independent Tatary are the Amu and the Sirr. The former is the ancient Oxus, and near its source is called the Harrat: oriental geographers also term it the Gihoon, as they call the Sirr the Sihoon; but as the proximity of the appellations must frequently occasion confusion and mistakes, they had better be dismissed from geography, being probably extraneous and Arabic, while the native words are the Harrat or Amu, and the Sirr, Sirt, or river of Shash.

AMU. OXUS. The Amu rises in the mountains of Belur, more than 200 British miles north-east from Badakshan, according to the map of Islenieff; and before it reach that city has already received the Ortong from the east. From Badakshan it passes west to Termed, after receiving numerous streams from the Ak Tau on the north (among which the most considerable is the Vash,) and from the Hindoo Koh on the south. After being joined from the same quarter by the Dehash, or river of Balk, with collected streams from the mountains of Gaur, the Amu follows a north-west direction, and falls into the sea of Aral, which appears, as before mentioned, to have been in all ages its chief receptacle, though a branch formerly passed by Urghenz towards the Caspian, and another seems to have been detached near Hazarasp; nay, in a country full of deserts, and only partially visited, even the mouth of the Ochus or Tedjen has by some been confounded with the Amu. The whole course of this noble river surpasses that of the Tigris, being probably not less than 900 British miles. It abounds with fish of various sorts.

Besides the numerous tributary streams already mentioned, three remarkable rivers join the Amu; the Sogd or river of Samarcand, already mentioned; the Morgab, which, however, according to some, is lost in a lake without any outlet to the Amu; and at its estuary the Kizil Daria, or Red River, the longest and most considerable stream, and of which a branch seems to flow apart into the Aral.

SIRR. IAXARTES. The Sirr, or river of Shash, also rises in the mountains of Belur, and falls into the eastern side of the sea of Aral, after a course of about 550 British miles. Ebn Haukal, who gives a curious account of these regions in the tenth century, calls this

* It is probable there may be large forests on the western side of the Belur, as Bentink, p. 258, says that timber abounds.

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river the Chaje. According to Islenieff the furthest source of the Sirr is the river Narin, which rises to the south of the lake Tuzkul in the chain of Alak, near its junction with the Belur alps; and by the account of Pallas the source is near that of the river Talas. The Narin itself consists of numerous streams collected from the ridges of Alak and Argun, bending to the south, while the other rivers in this quarter flow in a north direction; but the Sirr, peculiarly so called in the map of Islenieff, rises in the mountains of Terek Daban, or northern part of the Belur chain, where it joins that of Alak. After passing Andegan and Cojend, the Sirr or Iaxartes runs north-west by Tashkund and Tuncat, where it is joined by a considerable river from the east. At Otrar it receives the river Taraz, which by some is supposed to be the same with the Talas above mentioned; but by others a far more inconsiderable stream. The remaining course of the Sirr is chiefly through the desert of Burzuk; and it is doubtful if it be joined by the Sarasu, a large river from the north, so imperfect is the geography of these regions, which it is to be regretted that the Russians, or some enterprizing travellers, do not investigate.

In the country possessed by the Three Hords of Kirguses are also other considerable streams, as the Dzui, which rises on the north of the lake Tuzkul; and the Irghiz and Turgai, which flow into a lake on the north of the Aral; not to mention the Issim, pervading the stepp of the same name. Several of these lakes and rivers, now obscure, are remarkable in the history of Zingis and his successors, when directing their conquests to the north of the Caspian, they subdued the greater part of European Russia.

Lakes. The most considerable lake is the sea of Aral, or of eagles, already mentioned in the general view of Asia. If this lake ever joined the Caspian it was probably only by a strait, as between them are plains of great elevation, and according to some even mountains; but there may have been a strait in the direction of a salt lake to the north-east of port Iscander. To infer that the Iaxartes once passed in this direction seems an idle theory; for as it appears from Pallas that the Caspian was anciently far more extensive, it is more probable that the Aral should have formed part of the Caspian, than that it should be a lake of recent formation. It is sufficiently clear, from other circumstances, that the Greeks and Romans knew nothing with precision concerning the eastern shores of the Caspian, and Pliny has acknowledged the defect: and it is a vain attempt to reconcile modern knowledge with ancient ignorance.

Balcash. The lake Tengis, Balcash, or Palkati, is near 140 British miles in length, by half that breadth, being the largest lake in Asia, after the seas of Aral and Baikal; but this, with two other very considerable lakes to the east, properly belong to the Kalmuks subject to China. The lakes in the country of the Kirguses are of less moment. In the southern regions of Great Bucharia the river Sogd springs from the lake of Tharan, and according to some is lost in that of Karagol. A lake at the foot of the Belur is represented by some as the source of the Ortong which flows into the Amu. The Morgab and Tedjen, rivers of Corasan, are, according to some, lost in lakes. When travellers explore the mountainous region between Great and Little Bu-

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charia, it is probable that many lakes may be discovered, as not unusual in alpine countries.

Mountains. The principal range of mountains is that of Belur, which, according to all accounts, is a great alpine chain, covered with perpetual snow.* It is to be hoped that the eye of science will soon explore its recesses, which, as we have seen, will prove very productive in objects of natural history. The chief branches proceed towards the west, for on the east is the high central plain of Asia, full of deserts, as if nature had here performed her earliest operations, when this first and greatest continent emerged from the primeval waters, and its greatest height had afterwards drawn its fertility into the plains of China and Hindostan. Of this extensive table-land the Belur may be regarded as the western buttress, continued by the mountains of Jimbal and Kisik Tag to the Altaian chain, which forms the northern buttress on the south of the sea of Baikal. On the east this plain gradually declines from the sources of the Onon and Kerlon, and the south limit of the desert of Shamo, while the numerous alps of Tibet, to which country there is a gradual ascent from China, from the southern and excresent buttress. Except in some few places, sheltered from the north and east, this extensive elevation is exposed to extreme cold, the reverse of the deserts of Africa. It is intersected with great ranges of mountains, whose height must be enormous superadded to that of the bases; the western parts in particular, between Siberia and Tibet, abound with irregular ridges of naked rocks, presenting as it were the ruins of mountains.

Other Mountains. The chain of Belur, the ancient Imaus, proceeds nearly north and south, and is continued by the mountains of Alak or Alak Oola on the north of Little Bucharia,† which join the great Bogdo, the highest mountain in central Asia, according to the reports of the Monguls and Tatars. On the south the Belur seems more intimately connected with the Hindoo Koh than with the northern ridges of Tibet. The Hindoo Koh, and mountains of Gaur must not be forgotten among those of Great Bucharia, being seemingly an extension of the chain of Belur, without any interruption, except a narrow pass to the south of Anderab. The mountains of Argjun or Argun seem to form one chain with the Kara Tau, though broken, as not unusual, by the transition of a river; and like the Ak Tau, in the south appear a branch detached from the Belur. In the country of

* The Mus Tag of General Stralenberg's map is a chain running parallel to the Belur, (also, as he says, called *Bolut*) on the east. But that map, though surprizing for the time, swarms with errors; and even here he says that this part of the Mus Tag is the same with Paropamisus, which is well known to be the mountains of Gaur, running east and west. His other Mus Tag is therefore right, as appears from the maps of Wahl and Islenieff, being in fact the Tatvric name for the northern ridge of Tibet.

† The Alak Oola is the Ula Gola of Strahlenberg, which he confoimds with the Ungan Daga; and his Musart is part of the Alak of Islenieff. Wahl and others have taken many names at random from his map, which is valuable, as it gave us the first idea of central Asia; and a comparison between it and the modern maps might afford matter for an interesting geographical commentary. Sarikol, and other names in Little Bucharia, have been rather rashly adopted from Strahlenberg into our English maps.

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the Kirguses the Kisik Tag is probably an expiring branch of the great Altaian chain, like the Bugli Tag in the north. To the south of the desert range called Algidym Zano, a solitary mountain, the Ulu Tau, is delineated by Islenieff, probably that mentioned by Pallas, as a singular hill, in the midst of the Tatarian deserts, like that of the little Bogdo in the stepp in the east of the Volga.*

Neither the botany nor zoology of this country have been explored by any intelligent naturalist. We have seen that the alpine regions present many of the animals of Tibet.

Mineralogy. The mineralogy is not so obscure, though the Monguls and Tatars, who may be said to have possessed this country for a thousand years, have not industry for the proper pursuit of metalurgy. The alpine heights in the south-east contain gold, silver, and a peculiar production, the balay, or pale rose-coloured ruby; not to mention lazulite, or lapis lazuli. In the tenth century, before the native industry had expired under long oppression, Fergana produced sal ammoniac, vitriol, iron, copper,† gold, and turkoises: and quicksilver is added, a rare and valuable product. In the mountain of Zarka there were springs of naphtha and bitumen, and "a stone that takes fire and burns," which must imply coal. In the country of Setrushteh, D'Anville's Osrushna, there was a cavern, whence a vapour arose, which in the night seemed fiery, and from which sal ammoniac was procured. On digging the ground a similar vapour would arise, as we are told, of the fires near Baku. In the mountains of Ailak or Ilak, the most northern province around Otrar, there were mines of gold and silver. This venerable father of Arabian geography has compensated for the penury of his information respecting natural history, by an animated character of this country and its people, which may be here introduced, as a relief from the dryness of some of the details, unavoidable in describing a country highly celebrated, but the geography of which unaccountably remains the most defective of any in Asia, with the single exception of interior Arabia.

Character. "Such are the generoisty and liberality of the inhabitants, that no one turns aside from the rites of hospitality; so that a person contemplating them in this light, would imagine *that all the families of the land were but one house.* When a traveller arrives there every person endeavours to attract him to himself, that he may have opportunities of performing kind offices for the stranger: and the best proof of their hospitable and generous disposition is, that every peasant, though possessing but a bare sufficiency, allots a portion of his cottage for the reception of a guest. On the arrival of a stranger they contend one with another for the pleasure of taking him to their home, and entertaining him. Thus, in acts of hospitality, they expend their incomes. This author of the work says, 'I happened once to be in Sogd, and there I saw a certain palace, or great building, the doors of which were fastened back with nails against the walls. I asked

* From this mountain Timur beheld the vast stepps, waving like a sea of grass. Cherefeddin, ii. 81. edit. 1722.

† Ebn Haukal. He adds, p. 272, lead; and says that the chief mines of Fergana were in the mountains of Ashehreh, perhaps the Chechalith of Goez, two days from the province of Sarchil.

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the reason of this, and they informed me that it was an hundred years and more since those doors had been shut, all that time they had continued open day and night, strangers might arrive there at the most unseasonable hours, or in any numbers, for the master of the house had provided every thing necessary both for the men and for their beasts; and he appeared with a delighted and joyful countenance when the guests tarried awhile. Never have I heard of such things in any other country. The rich and great lords of most other places expend their treasures on particular favourites, in the indulgence of gross appetites, and sensual gratifications. The people of Maweralnahr employ themselves in a useful and rational manner: they lay out their money in erecting caravanseras, or inns, building bridges, and such works. You cannot see any town, or stage, or even desert, in Maweralnahr, without a convenient inn or stage-house, for the accommodation of travellers, with every thing necessary. I have heard that there are above two thousand rebats, or inns, in Maweralnahr, where as many persons as may arrive shall find sufficient forage for their beasts, and meat for themselves.'

" The author of the book further says, ' I have heard from a respectable person who was with Nasser Ahmed, in the war of Samarcand, that of all his immense army the greater part were men of Maweralnahr; and I have heard that Motasem wrote a letter to Abdallah ben Taher. The answer of Abdallah was, that in Maweralnahr there are three hundred thousand Kulabs: each Kulab furnishes one horseman and one foot-soldier; and the absence of these men, when they go forth, is not felt, or is not perceptible in the country. I have heard that the inhabitants of Chaje and Ferghaneh are so numerous, and so well disciplined, and furnished with implements of war, that they are not to be equalled in any region of Islam. And among the lower classes there are farmers who possess from one hundred to five hundred head of cattle. Notwithstanding all this, there are not any people more obedient to their kings; and at all times the Turk soldiers had the precedence of every other race, and the Khalifs always chose them on account of their excellent services, their obedient disposition, their bravery, and their fidelity.'

" Maweralnahr has produced so many great princes and generals, that no region can surpass it. The bravery of its inhabitants cannot be exceeded in any quarter of the Mussulman world. Their numbers and their discipline give them an advantage over other nations, which, if an army be defeated, or a body of troops lost at sea, cannot furnish another army for a considerable time; but in all Maweralnahr, should such accidents happen, one tribe is ready to supply the losses of another without any delay.

" In all the regions of the earth there is not a more flourishing or a more delightful country than this, especially the district of Bokhara. If a person stand on the Kohendiz (or ancient castle) of Bokhara, and cast his eyes around, he shall not see any thing but beautiful and luxurient verdure on every side of the country: so that he would imagine the green of the earth and the azure of the heavens were united: and as there are green fields in every quarter, so there are villas interspersed among the green fields. And in all Khorasan and Maweralnahr there are not any people more long-lived than those of Bokhara.

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'It is said that in all the world there is not any place more delightful (or salubrious) than those three: one, the Soghd of Samarcand; another, the Rud Aileh; and the third, the Ghutah of Damascus.' But the Ghutah of Damascus is within one farsang of barren and dry hills, without trees; and it contains many places which are desolate, and produce no verdure. 'A fine prospect ought to be such as completely fills the eye, and nothing should be visible but sky and green.' The river Aileh* affords, for one farsang only, this kind of prospect; and there is not in the vicinity of it any eminence from which one can see beyond a farsang; and the verdant spot is either surrounded by, or opposite to a dreary desert. But the walls, and buildings, and cultivated plains of Bokhara, extend above thirteen farsang, by twelve farsang; and the Soghd, for eight days journey, is all delightful country, affording fine prospects, and full of gardens, and orchards, and villages, corn fields, and villas, and running streams, reservoirs, and fountains, both on the right hand and on the left. You pass from corn fields into rich meadows and pasture lands; and the Soghd is far more healthy than the Rud Aileh, or the Ghutah of Dameshk (or Damascus); and the fruits of Soghd are the finest in the world. Among the hills and palaces flow running streams, gliding between the trees."†

* From the editor's preface, p. xv, it appears that this is the Ablah, or Ubbulah, near Bafra or Bassaro, about sixteen miles to the east of that city.

† Ebn Haukal, by Sir Wm. Ouseley, p. 234.

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ARABIA.

CHAPTER I.

BOUNDARIES.—POPULATION.—PROGRESSIVE GEOGRAPHY.—HISTORICAL EPOCHS.—RELIGION.—GOVERNMENT.—MANNERS AND CUSTOMS.—DRESS.—LANGUAGE.—EDUCATION.—CITIES AND TOWNS.—EDIFICES.—MANUFACTURES.—PRODUCTS.—COMMERCE.—

THE last remaining country of the wide Asiatic continent is Arabia, a region also more highly celebrated than precisely known. By the ancients it was divided into three unequal portions: Petræa, or the Stoney, a small province on the north of the Red Sea, between Egypt and Palestine, so called from the number of granitic rocks and mountains, the most remarkable of which is Sinai: Arabia Deserta was the eastern part, so far as known to the ancients; while Arabia the Happy comprised the south-west on the shores of the Red Sea.

BOUNDARIES. The boundaries on the west and south are marked by the red sea, or Arabian gulf, and the Indian ocean; while the Persian gulf extends a considerable way on the east, and this boundary is considered as continued by the Euphrates, or rather by the deserts towards the west, for the ancient Chaldea, a part of Babylonia, comprised the western shores of that river. The northern limits are less strongly marked, but both in ancient and modern times rise to an angle about a hundred miles to the east of Palmyra, which is not included in Arabia. Thence the line proceeds south-west to the south-east angle of the Mediterranean, a northern boundary of Arabia Petræa.

From the cape of Babelmandeb to the extreme angle on the Euphrates, the length may be not less than 1800 British miles; while the medial breadth may be about 800.

The central part of Arabia is filled with the vast province, or rather desert, called Neged, occupying almost the whole country, except a few small portions towards the shores, as Hejaz on the Red Sea, which contains Mecca and Medina, Yemen on the south towards the straits of Babelmandeb; Hadramaut on the shores of the Indian ocean, and

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Omon on the south of the entrance of the Persian gulf; with Lahsa, or Hajar, the Hejer of D'Anville, on the western shores of the same gulf*.

Population. The population is original and indigenous, the Arabians being the same race with the Assyrians of remote antiquity, the probable fathers of the Syrians, Egyptians, and Abyssinians, whose languages are intimately allied, as is that of the Hebrews; being totally different in form and structure, from that of the Persians, their powerful neighbours in the east. By all accounts, sacred and profane, the Assyrians were the most ancient civilized and commercial people; and when modern philosophy is divested of its prejudices, there will be no reason to infer superior pretensions from China, and far less from Hindostan. Nor will good sense readily admit that a nation more anciently civilized existed in the centre, or north of Asia, the relics of civilization being numerous and almost indelible. Situated in a country nearly central between Asia, Africa, and Europe; and in the wide intercourse of the Mediterranean, and the Arabian and Persian gulfs; it was natural that the variety of productions and wants should occasion the first rise of commerce in Syria; and the merchants of Tyre had explored the shores of Britain, when the Chinese seem not to have discovered those of Japan, a circumstance which of itself declares a vast superiority in navigation, whence the like may be inferred of the other arts and sciences. The pretensions of the Hindoos have been already weighed and confuted, that feeble and indolent race, passive in knowledge as in war, appearing to have received their confused ideas of the sciences from the east and from the west: while, according to the common rules of history, till China can produce one book as ancient as the scripture, her claim must fall to the ground. This early civilization will excite the less surprise, when it is considered that even the modern Arabians, are a most sagacious and intelligent race of men, remarkable also for spirit and valour, whose country alone has never been subdued by any invader, and who alone of all Asiatic nations, have preserved the sacred flame of freedom, which their progenitors kindled in their inaccessible mountains. In comparatively modern times they have vindicated the fame of their ancient pre-eminence by giving religion and laws to half of Asia and Africa, and a great part of Europe. The Arabian chalifs in Spain, Africa, and Egypt, as well as at Bagdad, cultivated the arts and sciences, and shewed a great superiority to the barbarous powers of Europe at that period. From Samarcand to the centre of Africa the Arabian language and manners are held in veneration.

Progressive Geography. This distinguished country is known in the earliest records of history and geography; and being celebrated for products which could only be procured by navigation, must have been no stranger to mercantile enterprise on its furthest shores towards the Indian ocean†, Strabo and even Eratosthenes,

* The curious reader may compare the interesting description of Arabia, by Abulfeda, of which the best translation is in the *Voyage dans la Palestine* of D'Arvieux, Paris 1717. 8vo. with Niebuhr's recent accounts.

† Hindoos, or Banians, are still numerous in Arabia as appears from Niebuhr.

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appear to have known those southern coasts, though not so distinctly as those on the east of the Arabian gulf. Ptolemy's description of Arabia evinces a considerable portion of accurate knowledge; and of the interior parts, as well as those of Africa, he probably, from his residence and opportunities in Egypt, had acquired a knowledge far superior to any possessed at the present moment. He has, however, greatly diminished the length of the Arabian gulf; and by increasing the size of the Persian, has considerably injured the just form of the country, as delineated by the accuracy of modern observations. In the tenth century, Ebn Haukal, though an Arab, gives no account of Arabia; whence it may perhaps be inferred that his work is mutilated and only the part relative to Persia, and the countries beyond the Oxus, preserved by his Persian translator. But later Arabian geographers, particularly Abulfeda, in some degree compensate for this deficiency. Yet even the just geography of the shores is recent, and has been improved since the time of D'Anville, a name for extensive science, and exact industry, to be held in perpetual veneration. Niebhur, to whom we are indebted for the best account of this country, penetrated but a little way into the interior; and many discoveries here remain for the enterprising traveller: but the passage is extremely difficult, the country being divided among a surprising number of Imams and Shieks, who often carry on petty wars, or rob the traveller from pure regard, that he may not be robbed as he proceeds.

Historical Epochs. The historical epochs of this people may be traced from the Assyrian empire, the most ancient on record, the Assyrians being only a northern branch of the Arabs. But the history of interior Arabia is deeply obscure, till the time of Mahomet, and their traditional songs chiefly celebrate Antar, a hero renowned like the Rustan of the Persians*. Arabia never appears to have been united, either in a republic, or under one monarch, except in the time of Mahomet and his successors, and the traditions of the petty states cannot be interesting. The kingdom of Yemen, or the south-west extremity, has been repeatedly subdued by the Abyssinians, the Persians, the Sultans of Egypt, and the Turks†; being separated from the interior by deserts, as well as mountains: but the wide inland countries of Neged have defied all invasion, and, far from being conquered, are almost unknown; being supposed to have been from the earliest times, divided among many Shieks, or little princes, whose minute transactions have escaped historical record. Yet Niebuhr informs us that Arabian traditions faintly indicate that the whole country was subject, in the earliest times, to a race of monarchs called Tobba, like the Pharoahs of Egypt, worshippers of fire from the country of Samarcand, who vanquished Arabia and introduced civilization. Niebuhr adds that an inscription was found in the interior, which corresponded with the characters of Persepolis, whose founder is also said by the Persians to have come from Samarcand. But whatever

* Tradition also celebrates Saad-el Kammel, said to have been king of all Arabia more than eighteen centuries ago. For old Arabian history, see Pocoke's Specimen, 1650, 4to.

† Gibbon, ix. 229.

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credit be lent to the Tobba kings, it is sufficiently clear that the civilization of the Arabs arose on the contrary from themselves; the Assyrians and Egyptians having a more just and ancient claim to that distinction, than the countries on the east of the Caspian. Nor is it improbable that this tale was invented by the Arabs, after the conquests of Zingis and Timur, with whom they might thus seek a connection.

The Hamiar kings are also said to have ruled over great part of Arabia; but probably they only reigned in Hadramaut, which includes the land of Hamiar, or of the Homorites. The history of Neged would be the most interesting, but as the Arabians, peculiarly so called, were destitute of letters, till the age of Mahomet, it cannot be supposed to aspire to much antiquity. Arabia in general presents few ancient monuments *

Religion. The ancient idolatry of Arabia has been explained by the writers on the life of Mahomet; and human sacrifices appear to have been offered by the natives of this country, as well as by their brethren the Syrians and Carthaginians. Sabianism afterwards spread from Chaldea. Nor was the Christian religion unknown before the appearance of Mahomet, whose system was soon diffused throughout Arabia. Besides the Sunnis there is here a considerable sect called the Zeidites, who in most points agree with the former, but seem rather more lax in their faith and practice. About the middle of last century a Sheik of Yemen, called Mekkrami, established a kind of new sect of Mahometanism: and about the same period what may be called a new religion was commenced in the province El Ared, in the central division of Neged, by a learned traveller of that country called Abd ul Wahheb;† which by the latest accounts begins to make considerable progress under his successors. He is said to have taught that God alone should be adored, and invocated: while the mention of Mahomet, or any other prophet he considered as approaching to idolatry. However this be, it is certain that the Sunnis are persecuted by this new sect; which is not matter of wonder when it is considered that the Sunnese system, followed by the Turks, is the most intolerant of the Mahometan sects, and seems to have no claim to superiority except that of the Turks over Mecca and Medina.

Government. This country is divided among numerous Imams and Sheiks, an idea of whose government may be drawn from that of Yemen which is described by Niebuhr. The title of *Imam* implying Vicar, that is, of Mahomet, is ecclesiatic; and among the Turks implies a common priest, while the Mulla presides in a court of justice. But among the Persians and Arabs the title of Imam is of superior dignity, as the twelve Imams, or genuine successors of the prophet in Persia; while in Arabia the word is considered as synoni-

* On a journey in 1782 from Aleppo to Bussora, some grand ruins were discovered about half way between Palmyra and the Euphrates, six days journey south-east from Aleppo, consisting of walls of brick and freestone, with pillars and arches richly ornamented, and an inscription in Arabic. As. Res. iv. 399.

† Niebuhr Descrip. de l' Arabie. Copenhag. 1773, 4to. p. 298.

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mous with *Chalif*, and *Emir El Mumenin*, or Prince of the faithful.* The antiquity of this title has not been explained, but the history of the Imams of Yemen is very modern; and though these Imams sometimes celebrate divine service, the style of Emir, which they themselves assume on their coins, seems more proper and precise. The inferior governments are conducted by Sheiks, a term merely implying old men, and seems rarely mingled with the ecclesiastic character.

The throne of Yemen is hereditary: and the Imam, or Emir, an independent power, acknowledging no superior in spiritual or temporal affairs.† He possesses the prerogative of peace and war; but cannot be called despotic, as he cannot deprive even a Jew, or a Pagan of life, but the cause must be tried before the supreme tribunal of Sana, consisting of several cadis, while he is only president. When an Emir shews a despotic disposition he is commonly dethroned. The next in rank are the Fakis, a title so lax as seemingly only to employ gentlemen. The governors of districts are called Dolas; or, if superior in birth, Walis. The Dola in some degree corresponds with the Turkish Pasha. The chief magistrate of a small town without a garrison is called Sheik; as a superior governor is sometimes called Emir, and in little villages Hakim. The Baskateb, or comptroller, is an officer who depends on the prince, and inspects the conduct of the Dola, and the management of the revenues. In each district there is also a Cadi; who, like those in Turkey, are judges of ecclesiastic and civil affairs; and perhaps depend on the chief Cadis at Sana, as those of Turkey on the Mufti; but in Arabia the prince himself is the high priest. His army, in peace, was computed at 4000 infantry, and 1000 cavalry; the soldiers being, as usual in the east, without uniforms. There is no navy, and the vessels in general are very rudely constructed, those of Yemen having sails made of matting.

Were Arabia united under one sovereign, as happened in the time of Mahomet and his immediate successors, its political importance may be inferred from the events of that period. Yet even then little is known, except with regard to the nations and tribes on the western shores, and on the northern frontiers towards Syria and Persia. There is, however, reason to infer that the internal province of Neged presents extensive deserts like those of Persia and Africa, in which case the former provinces, in fact, include the whole power of Arabia. But as an accurate idea of this subject, so far as the imperfect materials will admit, is indispensable in forming a just estimate of this extensive country, Niebuhr's short account of Neged may be here inserted.‡

Neged. "This large country extends from Lahsa, or Hajar, and Irak Arabi, on the east to Hejaz; and from Yemen on the south to the deserts of Syria on the north. The greatest part of this province is inhabited by Beduins, or wandering Arabs. The part which is particularly known under the name of Neged is mountainous, yet full of towns and villages, as well as of little Lordships, so that almost every little town is governed by an independent Sheik. Nevertheless,

* Niebuhr, 162. † Ib. 179.

‡ Ib. 226, the names are given in the orthography of Gibbon, ix. 222.

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at the time when the Sherefs were more powerful, several of these little Sheiks have been sometimes obliged to pay tribute to Mecca. The mountainous parts of Neged are very fertile in all sorts of fruits, particularly dates. There are few rivers, and even that which is marked in the map of D'Anville (the Astan) is only a *wadi*, or a torrent which runs after heavy rains. For this cause the Arabs of this country are obliged to dig very deep wells; and the want of water renders agriculture very laborious.

"There are in the province of Neged, properly so called, two principal districts, namely, Ared and Kerjé. The former borders on Hajar, or Lahsa, to the east; and presents a district called Hanifa, anciently celebrated, and still known by the same name. The dependencies are Aijana, a town which produced Wahheb the new prophet, and Munfoha." Niebuhr mentions other towns of Ared, among which is Jebrin, on the confines of Lahsa.

"The province of Kerjé is in the south-west part of Neged, and of course on the frontiers of Yemen: it extends along the east of Hejaz, a considerable way to the north. Here is the town of Imama, which in the time of Mahomet was renowned for the prophet Moseilama, in the district called Surza. This province also comprises other towns, among which is Salemia on the confines of Yemen. Mount Schamer, ten days journey from Bagdad, is in the northern part of Neged [and its precincts display several towns mentioned by Niebuhr*]. In Neged there is also a hilly country called Jof al Siran, between mount Schamer, snd Sham, or Syria: it contains two towns, Skake and Duma.

"The Arabs of Neged are not more inhuman towards strangers than the rest of their nation, nor less hospitable; but as this country contains so many little independent states, each governed by a Sheik, it may be easily conceived that travellers here find little security. Each prince endeavours to get from them all he can; and as they are commonly at war with each other, strangers are despoiled by the first, that his neighbours may not be the richer. Hence opulent foreign merchants cannot hazard their caravans in these regions; and those that come from Omon and Lahsa to Mecca are generally composed of beggars, or people who wish to pass for such: and the caravan which every year leaves Bagdad for Mecca, accompanied with many rich Persians, is in proportion to its number, charged with similar expenses and extortions as those of Turkey, Egypt, and Magreb, which pass by Hejaz. Yet there is room to believe that the towns of Neged carry on a considerable trade among themselves, and with the neighbouring places in Hejaz, Yemen, and Lahsa, whence it may be possible for an European traveller to inspect this internal part of Arabia. I was told at Bazra, that in Neged a young Arab cannot marry till he have proved his valour by the death of one of his enemies; but this appears to me extravagant, except wild beasts may be reckoned among enemies; and even in this case the law must not be of rigorous acceptation, as the Arabs of Neged are not less eager than the other orientals to marry their children very young."

* This province, unknown to our maps, might be named from the mountain till further inquiry; it must be about 200 miles from Bagdad, probably south-west. D'Anville has doubled the distance.

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Niebuhr then proceeds to mention the new prophet Wahheb, of the province of Hanifa, also now called Daraia. Of the wandering Beduins of Neged, one of the chief tribes is the Beni Kaled, who have conquered Lahsa, the reigning Sheik mostly living in tents: the tribe of Kiab dwells in towns and villages; while that of Montefic occupies both shores of the Euphrates, from its confluence with the Tigris to Arasje. Other tribes in that quarter need not be indicated. In the great desert of the province of Neged the tribe of Anasi is the principal; and there is another called Schamer, from the mountain: but it is to be regretted that Niebuhr's information concerning the inland regions is not more extensive; and that his maps are chorographic; while, from his general knowledge, he might have given a map of Arabia, superior to that of D'Anville.

Manners and Customs. From this general idea of the greater part of Arabia, it will be perceived that the manners and customs of the inhabitants must principally be common with those of the other Beduins, so frequently described by numerous travellers. Those of the country of Yemen have been accurately delineated by Niebuhr; and this province will probably, after the utmost discovery, continue to be regarded as the most interesting portion; representing, as Gibbon has observed, the Arabia Felix of antiquity.* In Yemen murder is punished with death, but more often left to private revenge, which occasions family feuds, that pestilence of society. The other customs are chiefly common with the Mahometan nations; but in politeness the Arabs vie with the Persians, and there are still remains of their ancient hospitality. The common salutation is the *Salam Alekum*, or Peace be with you; in pronouncing which words they raise the right hand to the heart, but this form is seldom addressed to Christians. On meeting in their wide deserts the salutations are multiplied; and the hand of a superior is kissed in token of respect; a ceremony which sometimes passes among equals, whence it would seem is derived the Spanish expression of kissing the hands, probably adopted from their Moorish victors. The houses, though of stone, are meanly constructed; the apartments of the men being in front, those of the women behind; and the fair sex in general seem remarkably submissive. Of a middle stature, thin, and dried as it were by the sun, the Arab is moderate in his food, the common people seldom exceeding a repast of bad bread made from durra, a kind of millet, mixed with camels' milk, oil, butter, or grease, the only drink being water. This bread of durra custom has taught them to prefer to that of barley, which, though pleasant, they think unsubstantial. Meat is little used, even by the rich, who deem it unhealthy in a hot climate: it is always stewed under a cover, which renders it succulent. The small tables, about a foot in height, are placed on a large cloth, or mat, upon which the guests sit. The orientals in general being water drinkers they are very fond of pastry. The most noted drink is coffee, which they prepare, like the Turks, by burning it in an open pan, and then bruising

* Ptolemy has extended this name over the wide deserts which reach from Omon to Mecca; but it is probable that he, as usual, filled up the central intervals with nations and towns which belonged to the shores.

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in a stone, or wooden mortar, which mode, according to our author, preserves a superior flavour to the common mode of grinding in a mill. In Yemen it is rarely used, as in their opinion it heats the blood; but of the shells, or husks of the coffee they prepare a liquor in the manner of tea. The most distinguished Arabs use porcelain from China, while the common people have recourse to earthen ware. Spirituous liquors, though forbidden, are not absolutely unknown: and they sometimes smoke a plant resembling hemp, which produces intoxication; nor is tobacco neglected, which is smoked either in the Turkish or Persian manner.

Dress. The dress, like that of the Turks and Hindoos, is long, often with large trowsers, a girdle of embroidered leather, and a knife, or dagger. Over the shoulder is worn a large piece of fine linen, originally designed to keep off the sun, or the rain. The head-dress seems oppressive, consiting of several bonnets, from ten to fifteen, some of linen, others of cotton and woolen, the outmost being often richly embroidered with gold; and around this multitude of bonnets is wrapt what they call a sasch, being a large piece of muslin, with fringes of silk or gold, which hang down behind. This thick covering for the head, which seems at first glance incongruous, may be necessary to secure them from what are called strokes of the sun: and the like form is visible in the ancient monuments of Egypt, where a labourer will often strip himself naked, and place his clothes upon his head. The chief dress is often a large shirt, either white, or striped with blue; while the common Arabs have only a piece of linen girt about their loins, with the belt and dagger; and another piece of linen over the shoulder; and two or three bonnets. The feet are often naked, and the soles become excessively hard; but in the mountains they are protected with sheep skin. Some shave the head, while others wear their hair. The common women are dressed in the large shift and trowsers: in Hejaz, as in Egypt, the eyes are exposed between coverings of linen, but in Yemen large veils are worn, with rings, bracelets, and necklaces of false pearls: sometimes in addition to ear-rings there is a nose-ring, as in Hindostan. The nails are stained red, and the feet and hands of a yellowish brown, with henna: the eye lashes are darkened with antimony, as in many other oriental countries; and every art is exerted to render the eyebrows large and black. Polygamy is confined to the rich; and throughout the whole Mahometan regions is far less general than is commonly supposed in Europe.

Language. The language of the Arabs was, even in ancient times, divided into several dialects, as may be suspected from its wide diffusion; and Niebuhr says that the modern Arabic contains perhaps more dialects than any other tongue. Even in Yemen there are subdivisions; and polite people use a different enunciation from the vulgar. The language of the Koran is so different from the modern speech of Mecca, that it is taught in the colleges there, as the Latin is at Rome. That of the frontier mountains of Yemen and Hejaz is thought to approach nearest to the ancient standard. Our learned author is inclined to think that under the Tobba kings, the characters called Persepolitan were used in Arabia; but these letters are more probably of Assyrian extract, and hence belong to the Arabs them-

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selves.' These characters were succeeded by the Hamiaric, so called from a race of kings; and these were followed by the Cufic. The Arabian authors seem to have magnified the ignorance of their country before the time of Mahomet, in order to enhance the illumination diffused by their prophet; for it is probable that the idolatrous literature then known was abolished by the fanaticism of the new sect. The chief poets are now found among the wandering Arabs in the country of Jof or Mareb, adjoining to Yemen on the east.* Some also appear in the towns, where they amuse the company in coffee houses; in this, as in other respects, resembling the Turkish. The day is divided into twenty-four hours, extending from sunset to sunset. Niebuhr gives curious illustrations of their astronomy and secret sciences, as they are called, or rather fanciful delusions. Physicians are rare, and ill recompensed, the chief medicine being universal temperance: and their skill scarcely exceeds the common terms of art to be found in the writings of Avicenna. The ancient treasures of Arabian literature are well known to the learned world; but few of these noble monuments were composed in Arabia, being mostly produced in the conquered countries from Samarcand to Cordova.

Education. Education is not wholly neglected, and many of the common people can read and write; while those of rank entertain preceptors to teach their children and young slaves. Near every mosk there is commonly a school, the masters, as well as the children of the poor, being supported by legacies. In the large towns there are many other schools, to which people of the middle class send their sons, who are taught to read, write, and accompt. The girls are instructed apart by women. In the chief cities are colleges for astronomy, astrology, philosophy, medicine, &c. and in the little kingdom of Yemen there are two universities, or celebrated academies; one at Zebid for the Sunnis; and the other at Damar for the Zeidites. The interpretation of the Koran, with the history of Mahomet and the first chalifs, form an extensive study, the records being in a dead language.

Arabia has been compared to a cloke of frize, laced with gold, the skirts alone presenting cities and other marks of civilization, while the great mass of the country is possessed by wandering tribes.

Cities and Towns. The most celebrated cities are Mecca and Medina; but being sacred ground, the infidels are not permitted to approach; and we are obliged to trust to the inaccuracy and exaggeration of oriental writers.

Mecca. Mecca, to use the emphatic language of Gibbon,† "was known to the Greeks under the name of Macoraba; and the termination of the word is expressive of its greatness, which has not indeed, in the most flourishing period, exceeded the size and populousness of Marseilles. Some latent motive, perhaps of superstition, must have impelled the founders, in the choice of a most unpromising situation. They erected their habitations of mud or stone, in a plain about two miles long and one mile broad, at the foot of three barren mountains: the soil is a rock; the water even of the holy well of Zemzem is bitter or brakish; the pastures are remote from the city;

* Niebuhr, 93. † ix. 227.

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and grapes are transported above seventy miles, from the gardens of Tayef. The fame and spirit of the Koreishites, who reigned in Mecca, were conspicuous among the Arabian tribes; but their ungrateful soil refused the labours of agriculture, and their position was favourable to the enterprises of trade. By the sea-port of Gedda, at the distance only of forty miles, they maintained an easy correspondence with Abyssinia; and that Christian kingdom afforded the first refuge to the disciples of Mahomet. The treasures of Africa were conveyed over the peninsula to Gerrha or Katif in the province of Bahrein, a city, built, as it is said, of rock salt, by the Chaldean exiles: and from thence, with the native pearls of the Persian gulf, they were floated on rafts, to the mouth of the Euphrates. Mecca is placed almost at an equal distance, a month's journey, between Yemen on the right and Syria on the left hand. The former was the winter, the latter the summer station of her caravans; and their seasonable arrival relieved the ships of India from the tedious and troublesome navigation of the Red Sea. In the markets of Saana and Merab, in the harbours of Oman and Aden, the camels of the Koreishites were laden with a precious cargo of aromatics; a supply of corn and manufactures was purchased in the fairs of Bostra and Damascus; the lucrative exchange diffused plenty and riches in the streets of Mecca; and the noblest of her sons united the love of arms with the profession of merchandize."

Other descriptions of this celebrated city are chiefly extended by an account of the Kaba or House of God, which is here reserved for the article of edifices. This city is said to be well built of stone; but of the population and other interesting circumstances there are no details. The veneration paid to Mecca seems to have preceded the age of Mahomet, for Diodorus Siculus mentions a temple in this quarter which was respected by all the Arabs. The government of this holy city is vested in a Sheref, who is a temporal prince; and his revenue is increased by the donations of Mahometan sovereigns.

Medina. Medina stands about 200 British miles north of Mecca, being, as well as the latter, about a day's journey from the shores of the Red Sea. It is, according to Niebuhr, a small town, surrounded with a paltry wall, little remarkable except for the tomb of Mahomet.

By the account of Pliny, an ancient city of Arabia, six miles in circumference, called Mariaba, was destroyed by the legions of Augustus:* but in modern times Sana, or Saana, in Yemen, is reputed the chief city of Arabia. It is situated at the bottom of a mountain called Nikkum, near which is a spacious garden. Niebuhr informs us that this city is not very extensive, as one may walk round it in the

* Lib. vi. cap. xxviii. It was a town of the Baramalaces; and according to D'Anville, of the Homorites, and now Mareb in the north of Hadramaut. But Ptolemy places it more to the north, and it is improbable that the legions should have penetrated so far, though the city may have been destroyed by a fleet with troops from the Red Sea. D'Anville's ancient Arabia is not sufficiently laboured. It is chiefly founded on Abulfeda's curious description, of which the best edition is at the end of La Roque's (or D'Arvieux) *Voyage dans la Palestine*, Paris, 1717, 8vo. The same author's *Voyage de l'Arabie Heureux*, 1716, is also interesting.

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space of an hour, so that the circuit cannot exceed four miles; and even of this small space a part is occupied by gardens.* The walls are of brick, with seven gates; and there are several palaces of burnt brick, or of stone; but the common houses are of bricks dried in the sun. There are several simseras, or caravanseras, for merchants and travellers. Fuel is extremely rare, though there be some pit-coal and peat; but wood is scarce, even in the Happy Arabia. There are excellent fruits, particularly grapes of many varieties. About six miles to the north there is a pleasant dale, enlivened with several rivulets: and to the west is a considerable stream.

Other Cities. When such is the chief city of Arabia, the description of the others cannot be very interesting. Judda, or Jedda, is the sea port of Mecca. The town of Mocha stands in the Tehama, or plain country of Yemen, and was built about four centuries ago: it is now chiefly frequented by English vessels from Hindostan. Aden is of still less consequence. Kesém belongs to the country called Mahrah: to the sheik of this town, also called Keschin, the noted isle of Socotra belongs, which is celebrated for aloes;† and we are told by the author of the Periplus, that in his time it belonged to the country which produced frankincense. The province of Omon is divided among many sheiks, but Rostak is esteemed the capital.

Maskat. Maskat is however the most considerable town, and the best known to Europeans, having an excellent harbour, and being from early times a staple of trade between Arabia, Persia, and the Indies. It was taken by the Portuguese in 1508, and they retained it for a century and a half. It is visited by English ships from Hindostan; and such is its consequence, that the Imam or prince of Omon, is often styled Imam of Maskat.

Lahsa, the capital of the province so called, is a large and well built town, standing on a torrent which falls into a considerable bay opposite to the isle of Bahrin, celebrated for the pearl fishery.‡ Our maps here insert a considerable river called Astan; but this is probably the stream in Neged represented by D'Anville, and which, according to Niebuhr, is only a *wali* or brook, which runs after rains. Upon this river D'Anville, following some preceding map, and uncertain accounts, places a country and city called Jemama or Yemama.|| This is the most singular feature in our maps, and is not reconcileable to the accounts of Niebuhr. D'Anville, in his map of Asia, says that Jemama is in Al Kardje, which is evidently the great province of Kerjé of Niebuhr, on the east of Hejaz and Yemen; and in this province, the Danish traveller informs us, is the city of Amamé or Imamé, renowned for the prophet Moseilama, whom Gibbon ascribes to Yemama; and which town is in the

* Nieb. Desc. 201. † Niebuhr, 248.

‡ Ib. 294. He with D'Anville, regards Lahsa as inland, and this city does not appear in his map of the Persian gulf. The isle Bahrain should rather be styled Aual. Ib. 284.

|| The maps of the beginning of last century here insert Ayamau, anciently, as they say, called Arabia Felix, thus removing Yemen into the centre of Arabia Deserta! Can this be the real source of Yemama? Gibbon, ix. 356, refers to Abulfeda for an account of Yamanah, which was in ruins in the thirteenth century.

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district of Sursa. But this cannot correspond with the Jemama of D'Anville, which is clearly in the province of Ared, which is bounded only by that of Lahsa on the east. Niebuhr also informs us that Aijana, a town of Ared, is remarkable for the new prophet Wahheb,* and our illustrious historian seems to have erred when he supposed it the same with Yemama; while the latter is probably a town of Kerjé, not far to the east of Hejaz. However this be, the province and city of Jemama are perhaps mere fictions, which should be dismissed from the maps, with the river of Astan, which, if it existed, would certainly be followed by the caravans from Lahsa to Mecca, while they seem to prefer a sandy desert.†

EDIFICES. Among the chief edifices of Arabia must be named the Kaba, or temple of Mecca; which, according to the representation of Niebuhr, rather resembles the old Asiatic temples of Hindostan and Siam than a mosk, being an open square, encompassed with a colonnade, and ornamented with minarets, as the others are with pyramids or obelisks. In this open space, which, as well as that of Medina, it seems improper to call a mosk, there are five or six houses of prayer, or chapels; while in the centre is a small square edifice, peculiarly styled the Kaba, in which is fixed a black stone, in all appearance an early object of Arabian adoration, being either a Phallus, or one of those stones venerated by the ancient orientals, who supposed them to have fallen from heaven, such stones not being wholly unknown even in modern natural history. For as there was a temple here prior to Mahomet, it would seem that he grafted his system on the prejudices of his countrymen. Possessed of no architectural pretensions, it is evident that the temple of Mecca owes its entire fame to Mahometan veneration.

MANUFACTURES. The manufactures of Arabia are of little consequence, though the people be most ingenious and industrious, when encouraged by government and opportunities. Even in Yemen the works in gold and silver, and the coin itself, are produced by Jewish manufactories. In all Arabia there are neither windmills nor watermills. Some muskets are made in the country, but they are mere matchlocks of mean execution. At Mocha there is one glass-house: and there are in Yemen some linen manufactures, chiefly coarse. Woolens are here too warm, even for the mountaineers.

PRODUCTS. The ancients vainly assigned to Arabia the Happy many products, which her sons imported from the East Indies, but

* See Niebuhr, 299, for the contests between Ared and Lahsa.

† As Niebuhr, p. 297, informs us that Salemia, a town of Kerjé, is on the frontiers of Yemen, while D'Anville places it to the north of his Yemama; it seems evident that the whole of this province is in a false position, and instead of lat. 25° should probably be in lat. 18°, the error being seven degrees, or not much less than 500 English miles! None of the towns of Ared mentioned by Niebuhr can be found in D'Anville's map, except Jabrin, which is right. But these remarks proceed merely on the supposition that Niebuhr is exact. There is perhaps some confusion of *Aijana* and *Imama*, and the former seems the Yamamah of Abulfeda.

Salemia must approach to Jof, a province east of Yemen, full of sands and deserts, and bounded east by the desert of Omon. Nieb. 239.

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aloes, myrrh, frankincense, though of inferior kind,* constitute with coffee the chief products of Arabia. There are besides cocoa trees, pomegranates, dates, apricots, peaches, almonds, filberts, pears, figs, tamarinds. Such, from the account of Niebuhr, seem to be the chief vegetable products of Arabia; while the best frankincense, with spikenard, cinnamon, cassia, cardamoms, and pepper, are imported from Hindostan; but being brought from Arabia to Egypt and Europe, it was rashly concluded, in ancient and modern times, that they were products of Arabia, thence called the Happy, while this fortunate country is in truth far inferior to most European regions. The orange trees seem to be from Portugal, and the lemon from Italy; while the mangosten and the cocoa appear, with others, to be imported from Hindostan. The balsam of Mecca is produced by an indigenous tree, called *amyris*, by Forskal. Senna is here common as in Egypt: but the cotton plants are inferior to the Indian.

Commerce. The Arabian intercourse with Hindostan has greatly declined since the discoveries of the Portuguese, whose superior skill and maritime force eclipsed the small vessels of the Arabs. From Yemen are exported coffee, aloes, myrrh (the best of which is from Abyssinia), oliban, or an inferior kind of frankincense, senna, ivory, and gold from Abyssinia. The European imports were iron, steel, cannons, lead, tin, cochineal, mirrors, knives, sabres, cut glass, and false pearls. Niebuhr regards aloes and frankincense, (the latter chiefly from Hadraumaut, which borders eastward on Omon, and must also be included in Arabia Felix,) as the only native articles of commerce before coffee came into use.†

* Niebuhr, 126; even this substance was chiefly from Abyssinia and the East Indies.

† P. 246.

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CHAPTER II.

CLIMATE AND SEASONS.—FACE OF THE COUNTRY.—SOIL AND AGRICULTURE.—RIVERS.—MOUNTAINS.—DESERTS.—BOTANY.—ZOOLOGY.—MINERALOGY.—NATURAL CURIOSITIES.—ISLES.

CLIMATE AND SEASONS. IN the mountains of Yemen there is a regular rainy season, from the middle of June to the end of September; but even then the sky is rarely covered with clouds for twenty-four hours at a time; and during the remainder of the year a cloud is scarcely to be seen. At Maskat, and in the eastern mountains, the rainy season extends from the middle of November to the middle of February; and in Omon there is rain from the middle of February to the middle of April. In the plains of Yemen rain is sometimes unknown for a whole year: and in July and August the thermometer will be 98°, while at Sana in the mountains it is 85°. It sometimes, though rarely, freezes at Sana, while at Loheia the thermometer is 86°.* Hence the inhabitants of Yemen live as if they belonged to different climates: and even at a small distance are found fruits and animals which might indicate remote countries. Those meteors called falling stars are common, as in Persia: but the aurora borealis is unknown in the southern countries of Asia. In general the wind from the sea is moist, that from the interior deserts dry: and in the northern deserts are chiefly perceived the disastrous effects of the burning wind called Samiel.

FACE OF THE COUNTRY. The general aspect of Arabia presents a central desert of great extent, with a few fertile *oasca* or isles, as in Africa; while the flourishing provinces are those situated on the shores of the sea, which supplies rain sufficient to maintain the vegetation. In Yemen there are mountains of considerable height, but chiefly barren and unwooded; while the temperature and plants, as has been seen form a striking contrast with those of the plains: yet the want of rivers, lakes, and perennial streams, must diffuse ideas of sterility through the Arabian landscape.

SOIL AND AGRICULTURE. The nature of the soil has not been indicated; but agriculture is occupied in the production of a beautiful wheat, maize, *durra* a kind of millet, barley, beans, lentils, rape; with the sugar cane, tobacco, and cotton. Rice seems unknown in Yemen, and oats throughout Arabia, the horses being fed with barley, and the asses with beans. There are also cultivated *wars*, a plant which dyes yellow, and is exported in great quantities from Mocha to Omon; and *fua*, used in dying red; likewise indigo. The grain in general yields little more than ten for one; but the durra sometimes greatly

* Niebuhr p. 4.

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exceeds that standard. The plough is simple, and the pick is used instead of the spade. The chief exertion of agricultural industry is to water the lands from the rivulets and wells, or by conducting the rains. The harvest is torn up by the roots, and forage cut with the sickle. Barley is reaped near Sana in the middle of July, but the season depends on the situation. At Maskat, wheat and barley are sown in December, and reaped in March.

Rivers. In the defect of rivers strictly belonging to Arabia, the Euphrates and Tigris, which pass through Irâk Arabi, have been claimed by some geographers, and the Euphrates may be aptly considered as an Arabian river. But in Arabia proper, what are called rivers are mere torrents, which descend from the mountains during the rains, and for a short period afterwards. It has been seen that the Astan of Neged, which in the map seems a considerable river, is only a brook of this description. The most important river is probably that which rises near Sana, and joins the Indian sea below Harjiah. The smaller streams of Yemen may be traced in Niebuhr's map of that country. The little river of Krim flows from Mahrah into the same sea: and is followed by two or three brooks in Omon. One or two small saline lakes occur in situations encircled with hills, which prevent the water from passing.

Mountains. The chief range of mountains seems to proceed in the direction of the Red Sea, towards the north not more than thirty miles distant, but sometimes in the south, about one hundred and fifty, a circumstance which imparts extent and fertility to Yemen. The hills of Omon seem a continuation of those on the other side of the Persian gulf; and the isles in the mouth of that gulf may be regarded as summits of that range. In the country of Seger, commonly ascribed to Hadramaut, there is a range of hills remarkable for the product of frankincense.

The direction of the other ranges cannot be ascertained in the imperfect geography of the country. D'Anville has laid down a ridge passing through the centre, south-west to north-east, but as he has erred so grossly as to place Ared in the south-west, and Kerjé in the north-east of this ridge, while the reverse is the truth, as appears from Niebuhr, who is completely silent concerning this chain, it cannot claim any authenticity. That great geographer has also placed the mountains of Shemer, the Schamar of Niebuhr, too far to the south-west, they being within ten days, or 200 miles of Bagdad*, while by D'Anville's map, they are more than seven degrees, or 420 geographical miles; and it is probable that they really belong to the Ramleah, or mountains of sand in D'Anville's map, which is open to most essential improvements in the whole interior parts of this country. In the division called Arabia Petrea the celebrated mountain of Sinai must not be omitted, which presents two sublime summits of red granite.

Deserts. The sandy deserts of Arabia are more striking objects than the mountains, and might be laid down in the maps with considerable accuracy. From Omon to Mecca the greater part of

* Niebuhr, 297.

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Nejed is one prodigious desert, interrupted towards the frontiers of Hejaz and Yemen by Kerjé, containing the district of Sursa, and some fertile spots and towns, indicated by Niebuhr. The north-west part of Neged presents almost a continued desert, a prolongation as appears of the other, with an *oasis*, Ared on the west of Lahsa, including Jabrin, and some other places mentioned by the same author. In this desert there is also the *oasis* of mount Schamer, and perhaps several others, which may remain for a long time unknown to geography.

Botany. The greater part of Arabia being composed of dry barren deserts of sand, wholly destitute of rivers, and containing but here and there a few scanty springs of brackish water, offers no adequate recompence to botanical investigations. The vegetables of these districts are of rare occurrence, and consist chiefly of saline succulent species able to endure the full force of a vertical sun, with no other refreshment than what is afforded by the nightly dews. The greater part of them belong to the genera of aloe, mesembryanthemum, euphorbia, stapelia, and salsola: they have little external beauty, and when found in more propitious climates obtain notice only from their singularity: here, however, they serve to mitigate the thirst of the parched camel, and to keep up the spirits of the toiling caravan, by breaking in occasionally on the melancholy uniformity of the desert. A more interesting scene however is presented to the botanist on the western side of the Arabian desert: here numerous rivulets descend from the mountains into the Red Sea, and scatter with a lavish hand, fragrance and verdure wherever they flow: the mountains themselves too, whence these streams originate, abound in vegetation, so that the plants in this part of Arabia may be conveniently distributed into three classes, namely, those that inhabit the sea shore, the plains, and the mountains. The first of these divisions bears a near affinity to the scanty flora of the desert: a sandy soil impregnated with salt, and an open exposure to the influence of the sun, produce similar effects in both situations. The champaign country between the shore and the mountains, though traversed by streams, is yet too deficient in water, to support the luxuriant vegetation that distinguishes the plains of India: the lower parts are chiefly occupied by grasses and other humble plants, which afford a most grateful sustenance to the flocks and herds of the pastoral tribes that wander over them. The sides of the rivers, the vallies among the mountains, and the plains at their feet, are far superior to the rest of the country. Here cultivation and nature seem to contend with each other in the richness of their productions, nor is it easy to assign exactly the limits of each: many of the Indian and Persian plants, distinguished for their beauty or use, have been transported hither in former ages, and are now found in a truly indigenous state; this is probably the case with the tamarind, the cotton tree, the pomegranate, the banyan tree or Indian fig, the sugar cane, and a multitude of valuable species and varieties of melons and gourds. Two valuable trees however are the peculiar boast of Arabia Felix, namely the coffee (coffæa Arabica), found both cultivated and wild, and the amyris opobalsamum, from which is procured the balm of Mecca, the most fragrant and costly of all the gum resins. There are no proper

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forests in Arabia, although groves and scattered trees are by no means unfrequent among the mountains. Of the palms, it possesses the date, the cocoa nut, and the great fan palm. The sycamore fig, the plantain, the almond, and apricot, the papaw, the bead tree, the mimosa nilotica and sensitiva, and the orange, nearly complete the catalogue of its native and cultivated trees. The list of shrubs and herbaceous plants does not contain many that would be interesting to the general reader: among these however may be particularized the ricinus, the liquorice, and the senna, all used in medicine; and the balsam, the globe amaranth, the white lily, and the greater pancratium, distinguished for their beauty and fragrance.

Zoology. The horse is the glory of Arabian zoology. According to Zimmerman this animal is found wild in the extensive deserts on the north of Hadramaut*; at least such may have been the case in ancient times, if it be not rather probable that the wild horse of Tatary has passed through Persia, and only been perfected in Arabia. They are here divided into two great classes, the *Kadishi*, or common kind, whose genealogy has not been preserved; and the *Kochlani*, or noble horses, whose breed has been ascertained for two thousand years, proceeding, as they fable, from the stalls of Solomon. These will bear the greatest fatigues, and pass whole days without food, living on air, to use the Arabian metaphor. They are said to rush on a foe with impetuosity; and it is asserted that some of this noble race, when wounded in battle, will withdraw to a spot where their master may be secure, and if he fall they will neigh for assistance. The Kochlani are neither large nor beautiful, nor is their figure at all regarded; their race, and hereditary qualities being the sole objects of estimation. They are chiefly reared by the Beduins, in the northern deserts between Persia and Syria. The preservation of the breed is carefully and authentically witnessed; and the offspring of a Kochlani stallion with an ignoble mare is reputed *Kadishi*. The Arabian steeds are sometimes bought at excessive rates by the English at Mocha. There is also in this country a superior breed of asses, approaching in form and qualities to the mule, and sold at high prices.

This region of Africa, seems also the native country of the camel, emphatically styled by the orientals the ship of the desert; being, by the expansion of its feet, the faculty of bearing thirst and hunger, and other qualities, peculiarly adapted by the author of nature to perambulate the sandy wastes, which would otherwise remain unpassable. Niebuhr observed camels of different kinds, and seems to decide the question concerning the dromedary, by saying that this animal in Arabia and Egypt has always one hunch only, and can otherwise scarcely be distinguished from the camel, but in being more light and speedy. "As to dromedaries with two hunches I never saw any, except three in a town of Natolia, and they had been brought from the Crimea: they were so big and heavy that they might rather be ranged under a particular species of camels, than of dromedaries†."

The buffalo seems unknown, being an animal which delights in mud and water, but the cattle have generally a hunch on the shoulder.

* Zoologia Geographica, 1777, 4to. p. 143 from Leo Afric.
† Niebuhr, 145.

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The breed of sheep has not been particularly illustrated; but it would appear that both the wool and mutton are coarse. The rock goat is said to be found in the mountains of Arabia Petrea. The other animals are the jakkal, or chacal; the hyena towards the Persian gulf; numerous monkies in the woods of Yemen; the jerboa, or rat of Pharoah in Neged: there are also antelopes, and wild oxen, with wolves, foxes, and wild boars, and the large panther, called in Arabic *nemer* and the *fath*, a small panther. The tiger seems utterly unknown, and the lion only appears beyond the Euphrates. Among the birds may be named the pheasant, common in the woods of Yemen, as the grey partridge is in the plains; while the ostrich is no stranger in the deserts. The birds of prey are eagles, vultures, falcons, and sparrow-hawks. A bird of the thrush kind, venerated because it destroys the locusts, is thought to come annually from Corasan. Land tortoises abound; and are eaten by the Christians in Lent. A little slender serpent, called baetan, spotted with black and white, is of a nature remarkably poisonous, the bite being instant death. The locust is too numerous; and the natives esteem the red as a fat and juicy food, and view it with no more aversion than shrimps, or prawns are beheld by us.

Mineralogy. The mineralogy of Arabia is of small importance. Having no native gold, the people are still addicted to the infatuation of alchymy. Nor is silver found, except mingled as usual, in the lead mines of Omon. There are some mines of iron in the district of Saade, in the north of Yemen; but the metal is brittle. As most of the noted vegetable productions of Arabia the Happy are now known to have been imported from Hindostan, so the best precious stones are from the same quarter. Those agates containing extraneous substances, which from the town are called Mocha-stones, are brought from Surat, which also sends great quantities to China*. The best carnelians also come from the gulf of Cambay. But Arabia produces onyxes in the province of Yemen; and the brown stone found near Damar seems a sardonyx. Rock salt appears near Loheia. Niebuhr also observed in Ajemen pentagonal pillars of basalt; with bluish alabaster, selenite, and various spars. Not one of the gems appears to be produced in Arabia. Near Hamada, in the district of Yemen, called Kaukeban, there is a warm spring of mineral water.

Natural Curiosities. Several of those uncommon appearances which geographers style natural curiosities, may, no doubt, be found in this extensive country, when more thoroughly explored. Niebuhr mentions that several springs, which in other countries would become rivulets, here flow for a short space, and then sink into an unknown subterranean course. Amidst the deficiency of water, it is not surprising that the grand reservoir near the ancient city of Mareb, though in a small part a work of art, was regarded as a singular exertion of nature†. Mareb is still the chief town of the province of Jof, about seventy-five British miles north-east from Sana, containing about three hundred mean houses, with a wall and three gates. In an adja-

* Niebuhr, 125. He here remarks that the Turks have mines in the county of Diarbekr and of Sivas.

† Niebuhr, 249.

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cent vale, about twenty British miles in length, were united six or seven rivulets, running from the west and from the south, partly from Yemen; and some said to be perennial streams full of fish. The two chains of mountains, inclosing this vale, approach so near at the east end that the space might be walked over in five or six minutes; or was about a quarter of a mile. This opening being shut by a thick wall the water was retained, and imparted particular advantages to agriculture. But the wall, constructed of large masses of hewn stone, to the height of forty or fifty feet, was neglected after the fall of the Sabean kingdom; and burst in the middle, leaving only the ruins on both sides, so that the water is now lost in the desert on the north of Hadramaut.

Isles. Besides several isles of little consequence in the Arabian gulf, there are two isles which deserve particular notice.

Socotra. Socotra, about 240 British miles from the southern coast of Arabia, appears in all ages to have belonged to that country, and to have been celebrated for the production of aloës, still esteemed superior to any other. Niebuhr says that it belongs to the Sheik of Keschin, a town of Hadramaut, as it did when the Portuguese made discoveries in this quarter; and the author of the Periplus observes that it was subject to the country which produced incense, that is Hadramaut. The inhabitants are clearly of Arabian extract. There are two bays, and some secure harbours; and the isle is also said to produce frankincense, while ambergris and coral are found in the neighbouring seas. The isle of Bahrin is in the Persian gulf, near the Arabian coast, and remarkable for the great pearl fishery in its neighbourhood, but the revenue thence arising to the Sheik of Busheer, was diminished by the pretensions of the Houls, a strong Arabian tribe between Gomberoon and cape Bardistan, who refused to pay for the permission. The name *Bahrin* signifies *two seas*, being seemingly an absurd modern appellation; for Abulfeda, as well as the Arabs of Lahsa, call the large isle Aual, a name transferred by D'Anville, who in Arabia seems rather unfortunate, to the peninsula of Ser, about 360 British miles to the east. The inhabitants of Aual, and the smaller isles, are Arabs of the Chia persuasion. In the large isle there is a fortified town; and in the whole group there may be forty or fifty mean villages.

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ASIATIC ISLANDS.

INTRODUCTION.

GENERAL ARRANGEMENT OF THE ASIATIC ISLANDS, INCLUDING AUSTRALASIA AND POLYNESIA.

HAVING thus completed the description of the wide continent of Asia, so far as the limits assigned to this work would admit, a difficult field of investigation opens in the innumerable Asiatic Islands, and those situated in the Pacific, or more properly Great Oriental Ocean. The topics about to be treated will become more clear from the inspection of Arrowsmith's chart of that ocean, or the Planisphere on Mercator's projection, with that prodigious expanse of water towards the middle. Hence it will appear that, though modern enterprize have failed in the discovery of a supposed Austral continent, (a hope and idea now dismissed from geography) yet the discoveries may be said to constitute a fifth part of the world; which accordingly Fabri, and other foreign writers of skill in the science, have admitted, under the name of *Austral Lands*, *Southern Indies*, and other denominations, including New Holland, New Guinea, New Britain, New Ireland, New Caledonia, New Zealand, the Friendly Isles, Society Islands, the Marquesas, and even the Sandwich Islands in the north.

These regions are, however, of so wide and distinct a nature, consisting of almost a new continent in the south of Asia, and scattered groups of isles in the Pacific, many of them nearer to South America than to Asia, while they are chiefly not above twenty degrees to the south of the equator, that the name of Austral Lands seems very objectionable, and that of Southern Indies ridiculous. Nor indeed can they well be blended under one denomination, as was long since observed by the learned president De Brosses, who, nearly half a century ago, proposed that the countries to the south of Asia, namely New Holland, New Guinea, and New Zealand, &c. should be styled *Australasia*, and the numerous isles

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in the Pacific *Polynesia*, from a Greek term implying many islands.* The denominations proposed by this learned author have appeared unexceptionable to most men of science; but the absurd names imposed by the ignorant seamen and map-makers of all countries have, as usual, prevailed, whence we have new countries which bear not the most distant resemblance of the old, and New South Wales has become a part of New Holland! It is deeply to be regretted that scientific works must continue to be disgraced by names imposed by whim and caprice, and that a Board of Nomenclature was not added to the Board of Longitude, to fix with due deliberation the appellations proper to be conferred. If there be a native name it ought, in every instance, to deserve the preference, as length may be abbreviated, and roughness smoothed; but where a general appellation is unknown to the small savage tribes, the names of monarchs, and other great encouragers of discovery, and those of eminent navigators, may be imposed, with a Latin termination, so as to pass into all European languages, with as little change as possible. It is to be wished that even now a board of this kind were instituted, to be held in London, but attended by learned deputies from Portugal, Spain, Holland, and France, that the claims of prior discovery may be fairly investigated, and the name of the first princely protectors or navigators imposed, to the lasting preservation of their memory. Amidst the choice of denominations, that of *New* should be dismissed, as of all others the most absurd and improper, and calculated to infer resemblances where none exist.

As the name of Australasia has been adopted by many men of science, in various extents and applications, it may be proper first to listen to the original inventor.†

"But in this immense extent of regions, which are to form the object of the researches about to be detailed, how numerous are the different countries, climates, manners, and races of mankind! The sight would be dazzled and confounded if care were not exerted to relieve it, and fix its attention, by divisions marked from distance to distance. These ought to be distinguished with regard to the progress of our knowledge, and at the same time with regard to the natural disposition of the objects. Our globe is composed of three large extents of land, Asia, Africa, and America;‡ and of three large extents of water, the Ethiopian, or Indian ocean, the Atlantic, and the Pacific. In like manner the Austral world may be divided into three portions, each to the south of the three above-mentioned. The first in the Indian ocean to the south of Asia, which may in consequence be named *Australasia*: the second in the Atlantic, which I shall call *Magellanica*, from the name of the discoverer, begins at the southern point of the American continent, and comprehends all that may thence extend under the southern point of Africa, where a long undiscovered coast is supposed to exist. I shall comprise in the third all that is contained in the vast Pacific ocean, and shall give to this division the name of *Polynesia*, on account of the great multitude of islands."

* Histoire des Navigations aux Terres Australes. Paris, 1756. 2 vols. 4to.

† De Brosses, ib. i. 79.

‡ Europe seems here considered by the learned President as a mere elongation of the continent of Asia.

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Such were the ideas of that eminent writer, alike distinguished for the extent of his erudition, the elegance and precision of his taste, and the comprehension and clearness of his judgment. But it must be reflected that at the time of his interesting compilation, the discoveries of our immortal Cook had not taken place, and the existence of a Terra Australis, or undiscovered continent in the south, was generally credited. The Magellancia of De Brosses may therefore pass into oblivion, as no continent, nor perhaps even isles, exist to the south of America, where indeed of all positions they were the least to be expected. But the two other appellations begin more and more to be admitted among scientific men, from whom they will gradually pass to the people, as ought to be the progress.

While the term *Australasia* may be justly applied to what is called New Holland, and the circumjacent lands, the name of that large island itself, so absurdly joined with New South Wales, might perhaps be aptly exchanged for that of *Notasia*, of the same sense with the former, but used in a more limited acceptation.* A description of this country naturally follows that of Asia, and the Asiatic islands in the Indian ocean; and will be properly succeeded by that of Polynesia, or the islands in the Pacific; which are far remote from the American coast, but are connected by brief passages with Australasia, the Sandwich islands alone excepted, which may however be followed by groups to be discovered to the south-west, so as to be connected with Polynesia. The reader needs scarcely be reminded that in this quarter alone of the world this remarkable exception occurs; for the islands belonging to both Americas, to Africa, and to Europe, are sufficiently distinct and appropriated, while the name of Asiatic isles, enormous as Asia itself, might be diffused to such an extent, as to embroil the utmost powers of geographical description, and present only vague confusion, instead of scientific precision.

In the eye of some geologists the isles of Sunda, the Moluccas, and others in the Indian ocean, are gradually enlarging; and may in time, with Australasia and Polynesia, form a vast new continent; while one or other of the ancient continents will be submerged under the ocean; and if the most exhausted and useless must fall, Africa would perish. But such imaginary views are foreign to the present design, which only attempts a precise description of what really exists, and the due connection and relation of the parts to each other; an object attended with many difficulties in this particular region of the globe. Before a proper arrangement can be followed it will be proper to fix some limits between the Indian and Pacific oceans.

As the continent of America divides the Atlantic, or Great Western ocean, from the Pacific, or Great Eastern ocean, (both so termed in relation to the ancient and civilized world,) and as Africa divides the Atlantic from the Indian ocean, so, by parallel usage and deduction, what is called New Holland may be considered as the fixed division between the Indian and Pacific, thus claiming with justice the authority of a continent, washed by the Indian ocean on the west, and the Pacific on the east; while a line drawn from the most prominent central capes,

* From the Greek word *notos*, the south; as *auster* is in the Latin.

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in the north and south, may be regarded as a boundary of these two oceans. The southern extension of this imaginary line is of little moment; but in the north it must be considered as a division of great importance to precise discussion, as the isles on the west must be considered as strictly Asiatic, and intimately connected with the description of Asia; while those on the right belong to Australasia, and Polynesia. This division must naturally and unavoidably depend on the observation of the widest channel between the Molucca islands,* and Papua, or New Guinea: and the degree of longitude, 130° from London, seems nearly to amount to a boundary. Hence Amboyna belongs to the Asiatic isles, while Timor-laut belongs to Australasia. The meridian of boundary passes through Ceram; but the proximity of that isle to Amboyna may properly connect it with the Asiatic isles, with which Mysol may also be classed. From the north-west extremity of Papua, or rather some small islands lying at that extremity, a clear line may be drawn, following the same meridian, and leaving Gilolo among the Asiatic isles on the west and those of Pelew among the Polynesian in the Pacific. This line then bending north-west would include the Philippine islands and the Bashees, passing to the south of Formosa; the other limits and appellations being sufficiently clear.

Such may therefore be the assumed boundary between the Indian ocean, and Chinese, &c. sea on the west and the Pacific on the east and between the Asiatic isles, and Australasia and Polynesia. The boundary between the two latter great divisions may be traced in consonance, as would seem, with the ideas of M. De Brosses, by regarding what is called New Holland as a continent, or great leading island, with which those most adjacent must be regarded as connected. Hence Papua belongs to Australasia: and a line drawn in the latitude of three or four degrees to the north of the equator, and then passing south in the meridian of 170° east from Greenwich, so as to include the New Hebudes, thence in the parallel of 30° south, gradually stretching to 175° west from Greenwich, including New Zealand, and the isle called Chatham, will present the natural and precise boundary of Australasia.

That division called Polynesia, by far the most extensive, adjoins on the west to the line above drawn around the Asiatic isles; thence it ascends about latitude 18° longitude 128° east in a north-east direction, so as to include the isle called Rica de Plata, longitude 161°, and thence curving south-east and encompassing the northern Sandwich islands, where our great navigator fell,† and the Marquesas, and extending to 120° west from London. Any isles to the north-east or east of this line of demarcation may be regarded as belonging to North or South America.

The southern boundary of the Asiatic isles may be considered as sufficiently ascertained by the wide channel between them and New Holland; while the north-west extremity of Sumatra may present a

* This name originally confined to five small islands, has been extended by the French geographers to a large group between Borneo and New Guinea. Mr. Forest, p. 31, regards Gilolo as the boundary between the Indian ocean and Pacific.

† There are other Sandwich islands, latitude 59° south, or beneath the parallel of Cape Horn. Such is the perplexity of the received nomenclature.

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meridian of separation on the west between the Asiatic isles, eminently so styled, and those in the Indian ocean. The same western boundary may be assigned to Australasia.

The southern limits of the last, and of Polynesia, alone remain; but as few or no islands have been discovered to the south of New Zealand, the parallel of 50° south lat. may be laxly assumed as the boundary of both.

Polynesia will thus extend from 50° south latitude to about 35° north latitude that is 858, or 5100 geographical miles:* while the breadth taken from longitude 170° east from Greenwich, to 130° west upon the equator itself, will yield sixty degrees, or 3600 geographical miles.

The length of Australasia may be computed from 95° of the same longitude to 185°, that is 90° in latitude 30°, or nearly 5000 geographical miles; while the breadth, latitude 3° north to latitude 50° south, will be 3180 geographical miles.

Even the smallest division, that of the Asiatic isles, in what has been called the Oriental Archipelago, is of great extent from 13° south latitude to 22° north latitude, that is 34°, or 2100 geographical miles; while the length from 95° east longitude to 132°, yields 37 degrees not far from the equator, nearly corresponding with the breadth.†

The several groups of islands which compose each of these grand divisions, will more properly be considered under each, in the separate descriptions, so far as the most recent discoveries will allow, after premising that they are submitted, with the preceding remarks, to the public candour, as mere opinions and topics of inquiry, which may instigate judicious men to further discussion, so as gradually to produce a scientific arrangement of universal acceptation, which is greatly wanted in this large portion of the globe.

* This length is increased by more than a third, as it extends from the north-west to the south-east; but position is a more important consideration than extent, when measured on the ocean.

† If however Australasia and Polynesia be not admitted as grand divisions, they must fall under the ASIATIC ISLANDS.

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ASIATIC ISLES.

ARRANGEMENT OF THOSE IN THE ORIENTAL ARCHIPELAGO.—1. ISLES OF SUNDA, OR SUMATRAN CHAIN.—2. BORNEO.—3. MANILLAS.—4. CELEBEZIAN ISLES.—5. SPICE ISLANDS.

THIS division, as already explained, comprehends what are called the Isles of Sunda, the Moluccas, and the Philippines. The isles of Sunda are so called from the Sound, or Strait, between Sumatra and Java; and consist of these two islands, with Borneo; and some include Celebez, which others ascribe to the Moluccas. Some geogrophers consider the line of islands forming as it were an elongation of Java, as belonging to those of Sunda, while D'Anville rather regards these as part of the Great Moluccas.

An able naturalist, impressed with this confusion, has attempted a new nomenclature.* Under the name of *Malayan* isles, he arranges Sumatra, Java, Borneo, by an appellation sufficiently vague and inapplicable, as the Malays extend to innumerable other islands. Another great division, that of the Philippine islands, he terms the *Manillas*, including Mindanao, whence he passes to the Sooloo islands, those of Sangir, and to Celebez, here seeming to lose sight of arrangement. From Balli, on the east of Java, what he calls the *Timorian chain* includes Sumbava, (the Cumbava of D'Anville,) Florez, Timor, &c. but when he adds Timorlaut, he again forgets precision; and his whole chain is so intimately connected with Java, that the separation cannot be applauded. Our ingenious author next describes *New-Holland*; and returns to what he calls the *Spicey Islands*, beginning with Arroo, an appendage of New Guinea, and which, by his own account, produces sago, not spice. The isles of Banda follow, with Amboyna, Ceram, Bouro, &c. Mr. Pennant next describes the Molucca islands, including Gilolo.—His *Papuan islands* are on the north-west part of *Papua*, or *New Guinea*, which follows, with some other isles; and after describing *New Britain* and *New Ireland*, he again returns to *Papua*. If the ingenious author had sedulously endeavoured to render confusion more confused, he could not have followed a better plan: but what precision can there be in the geography of these regions, in which a most able and intelligent writer has been recently so much bewildered?

* Pennant, Outlines of the Globe, vol. iv.

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An inspection of the maps and charts of this part of the globe, will show that a great chain of islands, connected with much proximity, extends from Sumatra north-west to Lackal or Lachal south-east. This chain includes Sumatra, Java, Balli, Sumbava, Florez, and Timor, as the chief isles; with Sumba in the south, and in the north Madura, Billiton, Banca, &c. This chain, divided and distinguished by the hand of nature, might either be termed the Sumatran islands, from the chief, or the received name of Isles of Sunda may be extended and restricted to this group, which, besides the strait so called, presents many other sounds or passages, from the Indian ocean towards the Pacific and the Chinese sea.

Borneo, an island of vast extent, should not be considered as belonging to any group; but the small isles around it may be termed the Bornean islands, as the Sooloos, Pulo Laut, Anamba, Natuna.

The Philippine Islands may already be regarded as the most regular and precise group in these seas, including the Bashees, and other little groups in the north, and Mindanao and Palawan in the south.

There remains the large island of Celebez, which may be considered as grouped with Shulla, Boutan, Salayar, &c. and the whole may be termed the Celebezian isles.

The Molucca islands, an ancient and venerable name, are properly only five of small size, on the west of Gilolo; but it seems proper to extend this appellation to Gilolo, Mysol, Ceram, Amboyna, and Banda.* The remaining isles in the south-east belong to Papua in Australasia.

These five divisions, 1. the Sumatran isles, or those of Sunda: 2. Borneo, and the Bornean isles: 3. the Philippines: 4. the Celebezian isles: and 5. the Moluccas, or Spice Islands, are not only indicated by the hand of nature, but seem sufficient for a description of this vast archipelago.

1 THE ISLES OF SUNDA, OR THE SUMATRAN CHAIN.

This division, as already explained, comprises Sumatra, Java, Balli, Lombok, Sumbava, Florez, and Timor; with several isles of less note in the vicinity of these.

SUMATRA. Sumatra is an island of great extent, being not less than 950 British miles in length, by about 200 in breadth; for on so vast a scale are the regions connected with Asia, that Great Britain, if situated in the oriental archipelago, would only in size rival Sumatra and Borneo. The English settlement of Bencoolen in the south-east part of this island, has occasioned particular attention to its nature and productions, especially since Mr. Marsden published an ample and intelligent account of this interesting island, from which this brief description shall be abstracted.† It was certainly unknown to the ancients, the information of Ptolomy terminating, as before mentioned, considerably

* Even Magindano, or Mindanao, is by the natives called Molucca Bazar, or the great Molucca; Forest, p. 305: so there can be no solid reason for restricting the term to the little Moluccas.

† History of Sumatra, 1784, 4to. 2d edit.

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to the north, and the mountain of Ophir, whence some have supposed this country known to Solomon, is a modern European denomination. The conquests and discoveries of the Mahometans, in Asia and Africa, remain a most important object of geographical investigation: and it is certain, that the Arabs in the ninth century, had discovered regions little known in Europe till the sixteenth. Among these was Sumatra, which seems also, by an unaccountable depravation, to be the *Lesser* Java of Marco Polo;* but his Greater Java may probably be Borneo, for he describes it as being 3000 miles in circuit, while the lesser is 2000. A chain of mountains runs through the whole isle, the ranges being in many parts double and treble, generally nearer to the western coast, where they approach within twenty miles of the sea; but the height is not so considerable as to retain snow. Mount Ophir, immediately under the equinoctial line, is 13,842 feet above the sea, only yielding about 2000 feet to mount Blanc. This seems almost the only Asiatic mountain which has been accurately measured; and it is not improbable that the northern mountains of Tibet, and even those of Caucasus, would be found greatly to exceed the highest Alps, the mountains being probably on as grand a scale as the rivers, and other features of that immense continent. Between the ridges of mountains are elevated plains, with lakes and water-falls, one of which is from the summit of a conic mountain. There are many rivers on the western coast, but commonly impeded by sand banks, so as to present few means of navigation. In the midst of what is called the torrid zone, the thermometer seldom rises above 85°, while in Bengal it attains 101°; and the inland inhabitants of the mountains, (which alone form zones,) use fires to dispel the morning cold; yet frost, snow, and hail, are unknown. Thunder and lightning are frequent, particularly during the north-west monsoon. The year has two divisions, called the rainy and dry monsoons; the south-east or dry, beginning about May, and ending with September; the north-west, or wet, beginning in November, and ending about March; the intermediate months, April and May, October and November, being variable: on the west coast, the sea breeze begins about ten in the forenoon, and continues till six in the evening; being succeeded by the land breeze during the night. The soil is generally a stiff reddish clay, covered with a layer of black mould, the source of perpetual verdure; but three quarters of the isle, especially towards the south, present an impervious forest. On the west, between the mountains and the sea, there are large swamps; but even here, the face of the country is remarkably broken and uneven. There seem to be many mines of gold,† though mostly neglected; and the copper is mingled with that metal. There are excellent ores of iron and steel: and that rare mineral, tin, is one of the chief exports, being principally found near Palimbang on the eastern shore, a continuation probably of the rich beds of Banca. Gold is found near Bencoolen,

* Marsden, p. 2 and 280. This ingenious writer says, that the Arab travellers, 1173, call this isle Ramni, for which he quotes Herbelot. In this he mistakes the date of the manuscript for the date of the journey, which was A. D. 851.

† Chiefly near Padan, ib. 133 What he styles white rock or marble, is quartz.

and in other places, but of inferior quality. The little island of Poolo Pisang, close to the foot of mount Poogong, is mostly a bed of rock crystal. The *naptal* seems a kind of soap rock: and petroleum also appears. There are several volcanic mountains in Sumatra, as in most of the other islands of the oriental archipelago, but eruptions are unfrequent. After an earthquake, a rent was observed in the ground for a quarter of a mile, from which a bituminous matter is said to have swelled. On the shores are many ledges of coral rocks, a circumstance frequent in this quarter of the world. The effects of the surf are singular, and have been minutely detailed by Mr. Marsden, who ascribes them to the trade, or perpetual winds, between the parallels of 30° north and south.

The inhabitants are vaguely divided into the Mahometans of the coast and the inland Pagans: but our author has considered the various races with more exact detail. The Malays, now so called, seem to be recent settlers, and their language a dialect of a speech most widely extended from Malacca, and perhaps the south of Hindostan, nearly as far as the western coasts of America, through the innumerable islands of the Pacific. By the account of Mr. Marsden there are inland races, of whom the Googoo are covered with long hair, and little superior to the Ourang Outangs of Borneo. The chief native sovereignty is that of Menang Cabow, but the Rejangs seem to retain the purest race and manners. They are rather short and slender: the noses of infants are flattened, and their ears extended; but the eyes are dark and clear, and among the southern women often resemble the Chinese. The complexion is properly yellow, being without the red tinge, which constitutes a tawney or copper colour: but the superior class of women fair, and commonly of not unpleasing countenances, and the nails are often tinged red as in Mahometan countries. In the mountainous parts large wens or goitres are frequent, as in the mountains of Hindostan and Tibet, proceeding perhaps from the dense mists, which affect the glands of the throat and occasion tumours, that, from the constant repetition of the cause become irremoveable. The chief distinction between the natives and the Malays of the coast seems to be, that the former are fairer and stronger. The original clothing is made of the inner bark of trees, as in Otaheite; but the dress of the Malays consists of a vest, a robe, and a kind of mantle, with a girdle, in which is the *crees*, or dagger. They wear short drawers, and there is no covering for the legs or feet: a fine cloth is wrapt round the head, which on journies is covered with a wide hat. Both sexes file their teeth, and stain them black. The villages are commonly on hills, and surrounded with fruit trees, the balli, or common hall, being in the centre. The houses are of wood and bamboos, covered with leaves of palm, standing on pillars, and scaled by a rude ladder. The furniture is of course simple, and the common food rice; sago, though common, being less used than in the islands further to the east. For the agriculture, and other interesting circumstances, our author may be consulted, who observes that the Malay countries, though beautiful in appearance, are generally of an unfertile soil, when applied to purposes of useful cultivation: and the facts which he mentions seem to leave no doubt of this unexpected truth. The horses are small, but well made, and hardy: the cows and sheep also diminutive, the latter probably from Bengal. Here are also found

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the elephant, rhinoceros, hippopotamus, tiger, bear, otter, porcupine, deer, wild hog, civet cat, with many varieties of the monkey. The buffalo is employed in domestic labour. Among birds, the Sumatran or Argus pheasant is of distinguished beauty. The jungle fowl, or wild poultry, also appear: and there is a breed in the south of remarkable height, likewise found in Bantam on the west of Java, which gives name to the well known small breed. The house lizard will run on the ceiling of a room, being the largest animal that can walk in an inverted position; and insects swarm, particularly the destructive termites. The most abundant article is pepper, the object of our settlement; being produced by a creeping plant resembling a vine. The white pepper is procured by stripping the outer husk from the ripe grains. Camphor is another remarkable product, being found in the tree in a concrete crystallization: camphor oil is the product of another kind of tree. Benzoin is the gum or resin of another tree; and cassia, a coarse kind of cinnamon, found in the central parts of the country. Rattans are exported to Europe as walking canes. There are three kinds of cotton, the annual, and the perennial or shrub. "The silk cotton (bombax ceiba) is also to be met with in every village. This is to appearance, one of the most beautiful raw materials the hand of nature has presented. Its fineness, gloss, and delicate softness, render it, to the sight and touch, much superior to the labour of the silkworm; but owing to the shortness and brittleness of the staple, it is esteemed unfit for the reel and loom, and is only applied to the unworthy purpose of stuffing pillows and mattresses. Possibly it has not undergone a fair trial in the hands of our ingenious artists, and we may yet see it converted into a valuable manufacture. It grows in pods from four to six inches long, which burst open when ripe. The seeds entirely resemble the black pepper, but are without taste. The tree is remarkable, from the branches growing out perfectly straight and horizontal, and being always three, forming equal angles at the same height: the diminutive shoots likewise grow flat; and the several gradations of branches observe the same regularity to the top. Some travellers have called it the umbrella tree, but the piece of furniture called a dumb waiter exhibits a more striking picture of it."* Coffee trees are universally planted, but the fruit is not excellent. The ebony tree abounds in the forests, and the banian tree spreads as usual to a vast extent, as it drops roots and fibres from certain parts of the boughs. The commerce is chiefly with Hindostan and China. The Malays excel in gold and silver fillagree, and in weaving silk and cotton; but other manufactures are imperfect, and the sciences little cultivated. Besides the Malay, several languages are spoken, which seem however to have a manifest affinity among themselves, and with that widely diffused speech which may be called the Polynesian, as it is diffused through innumerable islands in the Pacific. The Rejang and Batta are the chief internal languages, written in characters totally distinct, a singular circumstance, and which seems to overturn the ideas concerning the supposed difficulty in the invention of alphabets. Widely removed from the savage tribes of Africa and America, even the rudest tribes of Sumatra and the other Asiatic iles,

* Marsden, 127.

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as far as the utmost bounds of Polynesia, display a certain degree of civilzation. The panjeran or prince presides over many magistrates; but his government is limited, his power being confined by his poverty. Laws are unknown, the chiefs rendering judgment according to customs; but the English residents have drawn up a little code of laws, regulated by the usages. Most crimes are compensated by money, murder itself not excepted. The difficulties attending marriage form an exception to the general customs of uncivilized countries, and the general chastity seems remarkable. The celebration is commonly in the balli or village hall, and is accompanied with dances and songs. Polygamy is practised, seeming to be connected, as Mr. Marsden has observed, with the idea of purchasing a wife, instead of receiving a dower with her. Combats of cocks and quails are among the most favourite amusements, with pyrrhic dances, dice, and other games. The use of opium is extensive, but rarely leads to other excesses. What is called a *muck*, by the natives *mongamo*, rather proceeds from revenge, or a sense of oppression, than from intoxication; and the native ferocity requires no stimulant. Parturition is here brief and easy; and the mother in a few hours walks to the bath. The dead are buried, and the graves never disturbed. The Rejangs, according to our author, have no religion: but they believe in angels or spiritual beings, and seem to have some idea of the transmigration of souls. The sea is an object of particular veneration, as natural among islanders. The Christian religion is unknown in Sumatra, the missionaries having unaccountably neglected this large island, while St. Francis Xavier (Shavier), called the apostle of the Indies, converted many thousands in the more eastern islands, where however the light vanished with the apostle. The manners of the Lampons, in the southern part of the isle, are more licentious than in the other provinces. For an account of Menang Cabul, the principal Malay state, though the sultan be scarcely superior to a raja, the ingenious author so often quoted may be consulted.* The people seem the same with those of Malacca; but the author has strangely embroiled the question, by supposing that the Malays never planted any colony before they became Mahometans. The English possess two settlements in the country of Batta, where human flesh is still eaten, but restricted to that of prisoners taken in war and capital offenders, an observation which perhaps extends universally wherever this practice is known to exist. The kingdom of Acheen in the north-west extremity of the island carries on a considerable trade with the coast of Coromandel. The natives are more stout and tall, and of a darker complexion than the other Sumatrans. After Gama had passed the Cape of Good Hope in 1497, the importance of the city of Malacca became known, and it was soon after seized by these invaders, whose proximity led to several discussions and contests with the northern powers of Sumatra, in consequence of which the kingdom of Acheen became remarkable in the history of these regions; and in 1615 the monarch attacked Malacca with five hundred small ships, but was defeated: nor is this petty sovereignty unnoticed in the subsequent transactions of the Dutch and English.

* Marsden, 281.

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Several small isles encompass Sumatra. BANCA is particularly celebrated for its tin.* Of BILLETON little is known; nor of the isles that lie between Sumatra and Malacca called Pitti, and other names, with the common addition of *Pulo*, which in these seas appears to imply an island, being probably a Malay term.† On the west the NASSAU or Poggy isles have been lately noted for their inhabitants, dissimilar from their neighbours, and approaching the Otaheitans in the amiable simplicity of their manners, as well as in their personal appearance; while their colour, like that of the Malays, is light brown or copper.‡

JAVA. The large and interesting work of Mr. Marsden has led to those details concerning Sumatra; but the account of the other islands must be more restricted. Java is not only an extensive island, about 650 British miles in length by about 100 of medial breadth, but is remarkable for the city of Batavia, the celebrated capital of the Dutch possessions. This island, like the former, abounds with forests, and presents an enchanting verdure. It seems also intersected by a ridge of mountains, like a spine pervading its length.‖ Batavia is strongly fortified with walls, and a citidel towards the sea. There are many canals about four feet in depth, and the town is large, and well built of stone.

BATAVIA. This metropolis of the oriental archipelago presents many nations and languages; and the Chinese constitute the greater part of the inhabitants, being contented for the sake of gain to forget the tombs of their ancestors, and the laws of their country against emigration.** The Malay language, the French of the east, is here universally understood. The streets are planted with large trees, which practice, with the Dutch canals probably contributes to the unhealthiness of this spot. The heat is not so intense considered in itself, being between 80° and 86°, as from the low situation of the town, and the murky exhalations from the bogs, canals, and a muddy sea, whence, from nine o'clock till four, it is impossible to walk out, and it is usual to change linen twice a day. The sun being nearly vertical, rises and sets about six throughout the year; but the nocturnal repose is infested by moskitos. In the evening, from six to nine, parties are formed, and intemperance assists the poison of the climate. The water is also of a bad quality; and it appears absolutely unaccountable that a people possessed of common judgment should have selected this among ten thousand preferable situations in the various isles. The Javanese are of a yellow complexion, and not unpleasing lineaments: they are generally Mahometans. Their coin is of lead,

* The industrious translator of Stavorinus, vol. i. p. 357, says that these mines were only discovered in 1710 or 1711, and though the Dutch receive about three millions of pounds weight, the veins seem inexhaustible.

† This is confirmed by Thunberg's vocabulary of the Malay, so that Pulo is a ridiculous addition in maps.

‡ As. Res. vi. 77.

‖ Thunberg, ii. 213. For a tolerable map of Java see the voyage of Stavorinus, 1798, v. i. p. 313, where there is also a long and minute description of the island.

** The Dutch Governor General displays a pomp approaching to royalty.

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as in Sumatra and Borneo. The Chinese are the most industrious class, both in trade and agriculture. The air is unwholesome, from fetid fogs and other causes, that dysenteries and putrid fevers destroy prodigious numbers; and of three settlers it is rare that one outlives the year. The rainy season begins with December, and lasts till March. Crocodiles abound in the rivers, as in most of the oriental isles. Java is divided into three or four principalities, the chief being the emperor of Surikarta. Near Cheribon are a splendid tomb and mosk, ranked among the most magnificent antiquities of the east. Thunberg mentions several volcanos, one of which had overwhelmed with ashes a great number of coffee plantations. His journey to the interior mountains is interesting to the botanist; but the thickness of the forests appears to have prevented him from any general views of the island which might be serviceable to geography. The products resemble those of Sumatra; and the existence of the poisonous tree, which has supplied Dr. Darwin with a highly poetical description, appears to be completely confuted.

The small isle of Madura, on the north of Java, had its independent prince, whose sufferings under the tyranny of the Dutch have been repeated by Mr. Pennant.* The Dutch phlegm seems to have led them to greater cruelties than the fanaticism of the Portuguese or Spaniards; and our ingenious naturalist has observed, that "phlegmatic constitutions never feel for the sufferings of others, their callosity is incorrigible; warm tempers may do wrong, but they soon return to their native milkiness." It is to be regretted that the English had not retained for some years the possession of the Dutch settlements, to convince the Batavians, by example, that conquests may be better maintained by lenity than by sordid cruelty. The isle of Balli seems only remarkable for furnishing slaves, cotton yarn, and pickled pork.† Of Lombok, Sumbava, and Florez, little is known. Timor was discovered in 1522 by the companions of Magalhaens, who found in it alone the white sandal wood.‡ The Portuguese, after a long struggle, effected a settlement; but were expelled by the Dutch in 1613, who regard this isle as a kind of barrier of the spice trade. Timor is near 200 miles in length by 60 in breadth; and the inhabitants are esteemed the bravest in the oriental archipelago.

II. BORNEO.

Borneo. This island is reputed the largest in the world; and even after recent discoveries seems only to yield to Notasia, or New Holland, which, as it rivals Europe in size, may more properly be regarded as a continent. Borneo seems clearly to be the Greater Java of Marco Polo, which he says is 3000 miles in circuit, as it is about 900 miles in length, by 600 at its greatest breadth. That father of

* Outlines, iv. 31. See ib. 28, the massacre of 12,000 Chinese in 1740.
† See Forest 170.
‡ Premier Voyage autour du Monde par Pigafetta. Paris, an 9. p. 213, 214.

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oriental geography tells us that the Greater Java is 1500 miles to the south of Ciamba, probably Siampa, on the south of Cochin China. From the Greater Java were 700 miles to the isle of Condur, probably Pulo Condor; thence to the south-west lay the *province* of Boiach, or Loiach, which seems to be Malacca. From that province he passes south to the isle Petan, probably Bentam, or some other small woody isle in that direction: from Petan there were 100 miles to the Lesser Java, or Sumatra, 2000 miles in circuit, which Polo visited, and describes six of its kingdoms. From the Lesser Java, were 150 miles to the island of Necura, probably the most southerly of the Nicobar islands; but his nutmegs and cloves here found seem fabulous. From Necura he passes to Angania, in all appearance the Andamans, and thence south-west to the great island of Seilam, or Ceylon. From this account it seems clear that the isle now called Java was unknown to Marco Polo, and the name which probably implies only a large island, as Pulo a small one, was indifferently applied by the Malays to many countries; and happened to be retained by the Portuguese for a third Java, or large land, unknown to the great European traveller, whose writings deserve illustration, as not only interesting in themselves, but as they led to the discovery of America, and other grand events in modern history.*

The interior parts of the great island of Borneo are little known, though a considerable river flow from the centre of the country almost due south, forming the harbour of Bender Massin; and the names of several villages on the banks are laid down by D'Anville. "The far greater part of Borneo next to the sea, especially the northern, consists of swamps, covered with forests of trees of numberless species and great sizes, which penetrate for scores of miles towards the centre of the island. These unstable muddy flats are divided by rivers, which branch into multitudes of canals, and are the only roads into the interior parts. Lofty mountains are said to rise in the middle of the island; many are volcanic, and often occasion tremendous earthquakes.† The houses are often built on posts fixed on rafts, which are moored to the shore, and on the Banjar river experience the rise and fall of the tide, a difference of twelve feet. These singular villages are moved from place to place according to the convenience of the inhabitants. The coasts are held by Malays, Moors, Macassars from Celebez, and even Japanese. The natives in the interior are blacks, with long hair, of a middle stature, feeble and inactive; but their features are superior to those of negroes. Their religion, a kind of Mahometanism, and there are several kingdoms, the chief being at Tatas in the south on the great river, which for many miles is twice as broad as the Thames at Graves-

* The numerals are very corrupt, but in the account of the globe of Behaim, at the end of Pigafetta's voyage the isle of Petan is called Pentan, which seems to resemble Bentam. Pigafetta, p. 216, mistakes modern Java, which the natives, as he says, called Jaoa, for the Greater Java of Marco Polo; just as he finds Japan south of the Philippines and the Taprobana of the ancients in Sumatra. He adds that the Lesser Java is the isle of Bali! This gross ignorance of the Portuguese mariners at first led to great confusion, which is not even now completely expelled.

† Pennant's Outlines, iv. 52.

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end, and bordered by trees of most stupendous height. This river is greatly frequented by the Chinese junks; but European settlements have been unsuccessful, the adventurers having been massacred. The best accounts of Borneo seem still to be derived from the voyage of Beekman, published in 1718. Pepper abounds in the interior country, with the gum called dragon's blood, camphor, and sandal wood. A superstitious value is attached to the bezoar, a kind of concretion found in the monkies. Edible birds' nests are abundant. Gold is found in the interior country, where there are also said to be diamonds, but inferior to those of Golconda. The ourang outang abounds, and is said to light a fire by blowing with its mouth to broil fish, and boil rice, so that man is not the only cooking animal. The natives are called Baijos, but their language has not been explained: they are said to offer sacrifices of sweet scented wood to one supreme beneficent deity, and the sentiments of piety, or in other words, of delightful gratitude, are accompanied by laudable morals. The Biajos come down the great river of Banjar to the port of Masseen* in rude boats, with gold dust, and other articles, among which diamonds are mentioned, the Moors called Banjareens being the factors. These Biajos are tatooed blue, with a small wrapper about the loins. The chief extract one or two of the fore teeth, substituting others of gold, and strings of the teeth of tigers, a real badge of knighthood, or courage, are worn round the neck. These animals abound in the island, and probably alligators; a deplorable consequence of the meteniptsychosis preserving their numbers in the east, where in many regions these creatures are venerated, as being animated with the souls of heroes. The town called Borneo on the north-west consists of about 3000 houses, floating as above described: it was greatly frequented by the Chinese, who probably continue to be the chief traders to Borneo.

Bornean Isles. This large island, as already mentioned, ought not to be arranged with the group, or chain of Sunda, with which it has no connection; and with equal justice might Crete be arranged with the Cyclades, or Rhodes with the Sporades: but it is surrounded with many small isles which, from their relation to this comparative continent, may be termed Bornean islands.

Sooloo. Such is the group of the Sooloo in the north-east, of which Mr. Dalrymple, who visited them, has given a good account. They are rich in pearls, for which they were noted in the time of Magalhaens, Pigafetta, his companion, reporting that a Bornean monarch possessed two pearls found here, as large as pullet's eggs†. The chief isle is thirty miles by twelve: the natives rather polished, the government being vested in a sultan, for the Mahometan religion extends thus far‡. The isle of Tawee lies between the Sooloos and Borneo. At the northern extremity is Banguey, not far from Balabec, the most south-west of the Philippines: and Balambangan, remarkable for a settlement attempted by the English in 1773, but

* D'Anville calls the river Biajos, and the town Bender Massin, from a confusion of names and circumstances.

† Ut supra, p. 150.

‡ See also the Voyages of Sonnerat and Forest.

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evacuated either on account of the unhealthy climate, or of a Dutch invasion*. To the west of Borneo are the groups of Natuna and Anamba little visited or known; an observation applicable also to several isles in the south of Borneo; but Pulo Laut, which by D'Anville is represented as an isle, is by later discoveries attached to the continent of Borneo.

III. The Manillas, or Philippine Islands.

THIS large group was discovered by Magalhaens in 1521, who called them the archipelago of St. Lazarus; but they were afterwards styled the Philippines, in honour of that infamous tyrant Philip II of Spain. The popular name of Manillas seems preferable, as native and ancient, but the appellation seems unknown to Pigafetta, who calls the isle of Luzon *Lozon*, and does not indicate any other title†, while others term it the isle of Manilla.

Luzon. Luzon is the greatest and most important of these isles, being more than seven degrees, or near 500 British miles in length, by about 100 of medial breadth. The jealousy of the Spaniards has prevented the acquisition of precise knowledge concerning this important island, which is pervaded in its length by a chain of high mountains towards the east. Gold, copper, and iron are among the certain products; and the soil is reported to be uncommonly fruitful. The natives, who are of a mild character, are called Tagals, like all those of the Philippines, and seem of Malay origin‡. They are tall and well made, wearing only a kind of shirts with loose drawers, but the dress of the women is chiefly a large mantle, and their black and beautiful hair sometimes reaches the ground, the complexion being a deep tawny. The houses are of bamboo covered with palm leaves, raised on pillars to the height of eight or ten feet. The chief food is rice, often eaten with salted fish. There are many lakes in the isle of Luzon, the most considerable being that which gives source to the river Manillo. Several volcanos occur, and earthquakes are not uncommon. The cotton is of peculiar beauty, and the sugar cane and cocoa-tree are objects of particular culture. The city of Manilla is well built and fortified, but a third part is occupied by convents: the number of Christian inhabitants is computed at 12,000. Between this city and Acapulco, nearly in the same parallel on the west of Mexico, was conducted a celebrated commerce through a space of 140°, or 8400 geographical miles, more than one third of the circumference of the globe. The Manilla ships or galleons were formerly of great size, as appears from the well-known narrative of Anson's voyage, but

* This affair is explained by Forest, p. 336, but rather in a timid manner. We were expelled by an insurrection of the Sooloos, but were they not instigated by the Dutch?

† The Spanish ç with *cedilla* is often mistaken for the common *c*, whence D'Anville's Cumbava for Zumbava, and the *Luzon* of Pennant instead of *Luzon*. In like manner the Spanish *x*, pronounced *sh*, has occasioned our *Kullas* in these seas, instead of *Shullas*.

‡ Sonnerat, ii. 108.

latterly smaller vessels have been used. The city of Manilla was taken by the English in 1762, and the ransom remained unpaid. The Chinese were here numerous till the beginning of the seventeenth century, when the Spaniards committed a terrible massacre of that industrious people. In 1669 it is said that they were again expelled from all these isles, by the bigotry of the Governor: since which time there has been a great decline in industry and produce.

Mindano. Next in size is Mindano, a beautiful and fertile island, the chief Spanish settlement being at Sambuang in the south-west*. This island is in general mountainous, but the vast vales consist of a rich black mould, watered with the purest rivulets. The beauty of the scenery is unspeakable, and some idea of it may be formed from the prints of Mr. Forest's voyage. The Lano is a large inland lake, about sixty miles in circumference. Horses and buffaloes have here multiplied to a surprising degree. In the south there is a volcano of constant eruption, which serves as a sea mark.

The other chief Philippines are Palawan, Mindoro, Pani, Buglas, or isle of negroes, Yecu, Leyt, or Leita, and Samar. On the east of Zebu is the small isle of Mactan, where the celebrated navigator Magilhaens was slain. The other little islands might be counted by hundreds. In general this grand and extensive group presents many volcanic appearances, and most of the isles abound with lava, and volcanic glass, sulphur, and hot springs. Such at least are the representations of the French writers, who seem fond of volcanos, natural and moral. These isles present wild boars, deer, and useful animals of various kinds; and among vegetables the bread fruit must not be forgotten, which first appears on the eastern coasts of Sumatra, and thence extends its benefits through innumerable islands in the Indian and Pacific oceans.

IV. The Celebezian Isles.

THESE islands are by D'Anville classed with the Great Moluccas, but an inspection of his map, or of Arrowsmith's chart of the Pacific, will satisfy the reader that this is a violent arrangement, as not only a wide expanse of sea intervenes between Celebez and the Moluccas, but an extreme island, of a vast extent, is thus attached to a comparatively small and distant group. If Celebez must be classed with any other island, it ought to be with Borneo, from which it is only separated by the strait of Macassar, being as it were the Ireland of the Bornean Britain. But as these two islands have never been subject like those of Japan, to one government, there is no common appellation extended to both. It seems therefore preferable to consider Celebez, and the small adjacent isles, as a distinct portion of this vast archipelago.

Celebez. Celebez is an isle of great and irregular length, more than 600 British miles, but divided into various portions by

* Sonnerat, ii. 116. For an ample and curious account of this island, the reader may consult Forest's Voyage to New Guinea. The Haraforas, or black natives, are sold with the land.

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immense bays, so that the breadth is commonly not above sixty British miles; but if taken at the centre, where the various limbs unite, may be 140 British miles to Tolo bay in the east. This island is lofty and mountainous, especially towards the centre, and there are several active volcanos. Though the Asiatic isles abound in sublime and beautiful scenery, this is depicted as exceeding them all*. Rivers abound, rising in the high mountains, and precipitating down vast rocks, amidst a sylvan scene of lofty and singular trees. Though this isle seem to have been known to Magalhaens and Pigafetta, under the name of *Celebi*, as Borneo was under that of *Burni*, yet it is said to have been first explored in 1525, not as belonging to the Moluccas as Mr. Pennant conceives, for Pigafetta restricts his name to the five small isles on the west of Gilolo. The Portuguese obtained a settlement near Macassar in the south-west, being favoured by the king of that region: but were expelled by the Dutch in 1660, who continue to controul the island, the Chinese alone being permitted to trade. The natives commonly called Macassars†, often degrade their courage in the quality of free-botters, attacking vessels with surprising desperation, and often with lances and arrows poisoned with the juice of the notorious tree, or shrub called Upas. Their houses are raised on pillars, as usual, on account of the rainy season, or west Monsoon, from November till March‡. They were formerly regarded as cannibals, and the kings of the Moluccas were accustomed to send criminals to Celebez to be devoured. In 1768 the Dutch of the city of Macassar refused to admit Captain Cateret; though employed on a voyage of discovery, and his ship and crew were in the utmost distress‖. The Celebezian group might aptly be termed the isles of poison, being full of poisonous trees and plants; though the noted Upas be exaggerated and ascribed to Java, where it seems less known**. Nature has thus contrasted the salutary productions of the Spice islands, with the most pernicious proofs of her power. This large island having been, like Bornes, little explored, there is a great deficiency in its natural history. The inhabitants are said to cultivate great quantities of rice.

OTHER ISLES. Around Celebez are many small isles, as SANGUY in the north, the SHULLAS, and PELING in the east, with BOUTAN and SALA in the south, and some of smaller note in the west. Even the smallest isles are mostly inhabited and governed by chiefs. In Sanguy, and some others there are small Dutch garrisons, as advanced guards, to protect the Spice islands. Boutan is probably still ruled by a Mahometan Sultan.

* Pennant, iv. 86.

† The most powerful people are the *Boniane*, on the bay of Boni, called *Buggasses*, by English seamen, and by other nations *Bouginese*. Stavorinus, ii. 181.

‡ Mandelslo, i. 403.

‖ See his own accoount in Hawkesworth's Voyages.

** The fabulous Foersch plants his Upas twenty-seven leagues from Soura Sharta. D'Anville does not indicate this Soura in his map of Java. His account is confuted in the Chinese Embassy, vol. i. p. 309. The real Upas is the climate of Batavia.

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V. The Spice Islands including the Moluccas.

THE Moluccas, originally and strictly so termed, are only five small islands on the west of Gilolo, namely Ternat, Tidort, Motir, Makian, and Bakian, or Batchian*: but as the kings of the Moluccas have possessed territory in Gilolo, and other adjacent isles, and as the term *Moluccas* is considered as synonymous with the *Spice Islands*, the appellation has been extended. The French geographers distinguish them into *Grandes et Petites Moluques;* and the Moluccas of D'Anville, as tinged in his map of Asia, include all the islands in the oriental archipelago, except those of Sunda, and the Philippines; but this extension is objectionable, as leading to vague ideas, and confused description, and it seems preferable, as above mentioned, to include under the name of Spice Islands, those from Mortay in the north, to Banta in the south, and from Mysol in the east, to Bouro and Oubi in the west. Thus the chief Spice islands will be Gilolo, Ceram, and Bouro†, that of Amboyna, and the group of Banda, with such small isles as approximate nearer to these, than to the Celebezian group, or Sumatran chain. In this description are especially included the five celebrated isles, originally and peculiarly termed the Moluccas.

Gilolo. Gilolo is of considerable extent; but in the irregularity of form similar to Celebez. The length is about 230 British miles, the breadth of each limb, seldom above forty. The shores are low, the interior rises to high peaks, perhaps of granite, and it seems doubtful whether banks of coral can, as conceived, ever constitute a lasting isle, though they may form low and perishable ones, or enlarge those already fixed on the usual basis. Gilolo is said to have been once governed by one sovereign, a sheref from Mecca; but the sultans of Ternet and Tidore seem now to share this large isle betwixt them: the former possessing the northern part with Mortay, Bakian, Motir, and some Celebezian isles, and part of Papua, while the Sultan of Tidore holds the southern part, with Mysol and some other isles‡. This circumstance adds to the propriety of including Gilolo in the same description with the Moluccas. One of the chief towns is Tatanay, situated on a point or small promontory of the eastern limb, faced with precipices so as to be only accessible by ladders. This isle abounds with oxen, buffaloes, goats, deer, and wild hogs; but the sheep are few. The bread fruit is frequent in Gilolo, with the Sago tree: and there are probably cloves and nutmegs, in spite of the Dutch eradication, which is defeated by the very birds of the air, while nature loudly exclaims against the infamous attempts of avarice to restrain her bounties‖. The natives are industrious, particularly in weaving, but their exertions are suppressed by Batavian jealousy.

* Pigafetta, 167.

† In the interior forests of all these islands the spice trees abound. See Stavorinus, ii. 411.

‡ Pennant, iv. 193.

‖ Mandelslo, i. 104, classes cloves among the products of Gilolo.

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CERAM. Ceram is another island of considerable size, being about 190 British miles in length, by forty in breadth; low towards the shore, but with inland mountains. Mr. Forrest specially mentions that Ceram produces clove trees; and there are large forests of the sago tree, which forms a considerable article of export, yet this large island has been little explored, and is almost unknown.

BOURO. As in geographical description the size of an island is a leading feature, the next mentioned must be Bouro, about ninety miles in length, by fifty in breadth. The isle was nominally subject to the king of Ternat; but in 1660 the Dutch built a fort, and though they burned the exterior woods, seem to have improved the industry of the inhabitants*. The civet weasel is found here, and the curious hog called the babiroussa. The isle of Bouro suddenly rises from a deep sea, being encompassed as with a wall. The interior mountains are so lofty that they may sometimes be descried at the distance of twenty-eight leagues. A green ebony, and a kind of iron wood, are mentioned among the trees; and it is probable that the clove, and perhaps the nutmeg, defy, in the mountain recesses, the wild avarice of man.

Of the other large islands, Bakian, or Batchian, will be described with the Moluccas strictly so called. Of MORTAY, MYSOL, (Mixoal, or Michoal,) and OUBI little is known. Mortay is a beautiful isle but thinly inhabited, though full of sago trees, which are cut by the people of Gilolo; and is subject to the king of Ternat; it being a singularity in the oriental archipelago that small isles have been sometimes selected for the seats of monarchy, being generally more civilized by the concentration of society, than the large, over which rude tribes are thinly dispersed. MYSOL, the most eastern of this group, is of a triangular shape, with a bold shore. The villages are built in the water upon posts; and there are picturesque forests visited by the birds of paradise, which seem to migrate from Papua, and are caught in considerable numbers. These romantic and beautiful birds strictly belong to Papua, or New Guinea, but their flight extends over most of the Spice islands, where they always descend as from heaven, and as the natives believe, float in aromatic air. OUBI abounds in cloves, and the Dutch have a small fort on the west side; but the inhabitants are mostly fugitive slaves from Ternat.

MOLUCCAS PROPER. But the most celebrated and important islands of this group still remain to be described. The MOLUCCAS strictly so called, in the western extremity; and AMBOYNA and BANDA in the south. The little, or proper Moluccas, as already mentioned, are TERNAT, TIDORE, MORTIR, MAKIAN, and BATCHIAN. It would appear from Pigafetta's account of the expedition of Magalhaen's, that the Mahometan settlements in these islands, only took place about half a century before his time. In 1510 they were visited by Portuguese navigators from the west: and the fame of the discovery was one of the chief inducements to the first circumnavigation of the Spaniards, conducted by Magalhaens, a Portuguese commodore. These two great maritime nations afterwards contested this precious property;

* Pennant, iv. 174.

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but the Moluccas were finally resigned to the Portuguese, who were supplanted by the Dutch about the year 1607. The English also claiming this opulent commerce a treaty was signed in 1619, declaring the Moluccas, Amboyna, and Banda common to both; the English to have one third of the produce, and the Dutch two; each contributing a similar proportion to defend the islands from invaders.* But in the short course of three years "the Dutch, actuated by their insatiable avarice, determined, by the most diabolical means, to free themselves from all competitors. They forged a plot of the English against their lives and liberties; but such a plot that none but ideots could have been supposed to have projected. The charge was, that ten factors, and eleven foreign soldiers were to seize on the castle garrisoned by two hundred men. A foolish question asked by an Indian soldier, as to the strength of the place, was the foundation of the tragedy. He was seized and put to the most exquisite tortures that hell itself could invent; and in his agonies answered the artful interrogatories in the manner the Fiscal could wish. Our countrymen and the eleven foreign soldiers underwent the same horrid torments, which were continued at intervals during eight days. The means are too dreadful for the humane pen to recite, or the humane ear to bear. The constancy of the poor sufferers was often overcome; they made such answers as they thought would soonest free them from the rack, and which they recanted as soon as the torture ceased. They were then recalled to their torments. At length the record of examination was read, and the greater part were relieved by a speedy execution: those who were reprieved could drag but a miserable life with mangled bodies or dislocated limbs. The sufferers, before death, were confronted with each other, English with Indians: both bewailed their infirmity for accusing the other under the pressure of torture, and mutually exchanged forgiveness. A full account is given of this horrid transaction by the innenious Campbel, in his collection of travels: we would excuse his speaking to our eyes by a most horrible print. The foreign soldiers, from good authority, he supposes to have been Koreans, an adventrous naval people even in that early time†."

The clove is said to have abounded particularly in Makian, but the growth was afterwards confined by the Dutch to Amboyna. The nutmeg specially flourished in the group of Banda: and the Romans appear to have known the clove, but not the nutmeg, which seems to have been brought to Europe by the Mahometans. The largest of the little Moluccas is the Batchian, called by D'Anville Baisian, being governed by a sultan, who is likewise sovereign of Oubi and Ceram, with Goram, a little isle, south-east of Ceram, reputed the most eastern boundary of the Mahometan faith‡. This monarch has a pension from the Dutch, either for the destruction, or supply of nutmegs, but is otherwise little subservient. Batchian rises into woody hills; and on the shores, as in most isles of this archipelago, there are prodigious rocks of coral, of infinite variety.

Makian. Makian is a small isle at a greater interval, to the north of Batchian, than appears between the other Moluccas, and

* Rymer's Foedera, xvii. 170. † Pennant's Outlines, iv. 168.
‡ The little isle of Goram has thirteen mosks. For. 38.

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rises like a high conic mountain from the sea. This was regarded as the chief Dutch settlement before Amboyna became the metropolis of the Moluccas*. Next is MORTIR, formerly, as an old English writer says, the seat of Venus and voluptuousness. The most distinguished of the proper Moluccas are TIDORE and TERNAT. While Portugal was united to Spain the Dutch were defeated near Tidore in 1610, by the Spanish admiral Sylva; but by the assistance of the king of Ternat the Batavians seized the fort. In Tidore there were twenty-five mosks, and the sultan, as already mentioned, possesses also the south of Gilolo, and claims tribute from Mysol.

TERNAT. Ternat is the most northern and most important of the Moluccas, though it scarcely exceed twenty four miles in circumference. The Sultan controuls Makian, and Motir, with the north of Gilolo, Mortay, and even some Celebezian isles, and part of Papua, whence he derived a tribute of gold, amber and birds of Paradise. Mr. Forrest has published a list of the militia, furnished by the respective territories of the sultan of Ternat, amounting to 90,700, nor was the naval force inconsiderable, and the Ternatians and Tidoreans have not shunned maritime conflicts even with Europeans. In 1638, the Batavians formed an alliance with the king of Ternat, and the lesser princes, which had been repeatedly renewed; but garrisons are established to enforce the observance, and the sultans of Ternat and Tidore watched with great attention. The largest of the *praoe*, or small ships, may be about the burden of ten tons: on each side are singular frames, like wings, on which the rowers are placed, yet these vessels move with great swiftness through a smooth sea. Ternat consists chiefly of high land, abounding with streams, which burst from the cloudy peaks; and there is a volcano which displayed great force in 1693, The chief quadrupeds are goats, deer and hogs, and the birds are of distinguished beauty, particularly the king fisher, clothed in scarlet and mazareen blue, called by the natives the Goddess. In Ternat the Boa-serpent is sometimes found of the length of thirty feet; and by its power of suction and constriction is reported sometimes to swallow even small deer.

AMBOYNA. Equally distinguished are the most southern Spice Islands of AMBOYNA, and BANDA, cloves being now restricted, so far as Dutch avarice could effect, to Amboyna, and nutmegs to Banda. The Governor of Amboyna makes an annual progress throughout the Spice Islands, to see that treaties are observed, and suppress any new object of jealousy. Amboyna was discovered by the Portuguese about 1515, but was not seized till 1564; and was conquered by the Dutch about 1607. This celebrated isle is about 60 British miles in length, north to south, and on the west side there is a large bay, which divides it into two limbs, or peninsulas. On the eastern side is another bay, with a bad harbour, where the Portuguese erected their chief fortress, Victoria. The town of Amboyna, the capital of the isle, stands near the south-west extremity, and is neatly built; the houses, on account of the frequent earthquakes, seldom exceed one floor; but the State House is

* See in Mandelslo a View of Amboyna, in which it is called *Capitale des Isles Moluques.*

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an edifice of two stories. The face of this island is beautiful, woody mountains, and verdant vales, being interspersed with hamlets, and enriched by cultivation*. The clove tree grows to the height of about forty or fifty feet, with spreading branches and long pointed leaves. In deep sheltered vales, some trees will produce thirty pounds weight annually, the chief crop being from November to February. The soil is mostly a reddish clay, but in the vales blackish and sandy. When Amboyna was recently seized by the English†, it was found, with its dependencies, to contain 45,252 souls, of which 17.813 were Protestants, the rest Mahometans, except a few Chinese and savages. The Dutch are tolerably polished, this being the next settlement to Batavia in wealth and consequence. The natives cannot be praised, but differ little from other Malays; and when intoxicated with opium will commit any crime. The dress is a loose shirt, or frock, of cotton cloth; and the chiefs are called Rajas. Cattle, grain, &c. are imported from Java. The Dutch discouraged the growth of indigo, lest the natives should become rich and rebellious; but the sugar and coffee are excellent, and among many delicious fruits, is the mangusteen of Hindostan. About eleven years ago, nutmegs were allowed to be cultivated in Amboyna, Banda not furnishing a sufficient supply.‡ The chief animals are deer and wild hogs, and among the birds is the Cassowary. The most curious woods are brought from Ceram. The abominable despotism of the Dutch government and laws, is exposed, in the above account, as only tending to impoverish and emasculate the country. An ample description of the plants of Amboyna has been published by the industrious Rumphius.

BANDA. Banda is the chief isle of a group which comprises six or seven others, *Rossigen*, *Nera*, *Gonong*, or *Ganapez*, (in which there is a remarkable volcano,) *Way*, and *Rohn*. Banda, or Lantor, does not exceed eight British miles in length, West to East, and the greatest breadth at its eastern extremity may be five. The nutmeg tree is chiefly cultivated in Nera, Gonong, Ay, or Way, and Lantor, or Lontor, which last is a particular name for the largest isle, as all the others are indifferently styled Bandas; and flourishes, not only in the rich black mould, but even amidst the lavas of Gonong, which is the highest isle, the summit being 1940 feet above the sea. When the English seized these isles in 1796, the annual produce was about 163,000 pounds of nutmegs, and 46,000 pounds of mace.‖ The nutmeg tree

* An account of the Spice Islands, since they have been in the possession of Great Britain. Asiatic Register, 1800, p. 200. There was a most violent earthquake in 1755.

† The islands of Amboyna and Banda were taken without resistance in February and March, 1796, by the English Admiral Rainier.

The oblong nutmeg is not esteemed, being of a less spicey nature than those cultivated at Banda. Stavorinus, i. 342. Cloves have been introduced into the West Indies, and in 1798 about 3000lb. were exported.

‡ See the above account, where the author has confounded the clove with the nutmeg.

‖ The hurricane and earthquake, 1778, almost annihilated the nutmeg trees in Banda, so that the Dutch have become the dupes of their own avarice. From 1796, to 1798 the English East India Company imported 817,312 lb. cloves, 93,732 lb. nutmegs, 46,730 lb. mace, besides private trade, amounting to about a third part of the above. Stavorinus, ii. 418.

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grows to the size of a pear tree, the leaves resembling those of the laurel, and bears fruit from the age of ten to one hundred years. "The nutmeg, when ripe on the tree, has both a very curious and beautiful appearance: it is about the size of an apricot, and nearly of a similar colour, with the same kind of hollow mark all round it; in shape it is somewhat like a pear: when perfectly ripe, the rind over the mark opens, and discovers the mace, of a deep red, growing over, and covering in part, the thin shell of the nutmeg, which is black*."

The ground being chiefly occupied with these precious plantations, cattle and grain, &c. are imported from Batavia; and the Chinese merchants carry European articles even to Papua or New Guinea. The inhabitants of the Banda isles were found to be 5763. The Dutch still pay a courteous tribute to the sultan of Ternat,† once sovereign of Amboyna and Banda; but from the Moluccas, strictly so styled, little is obtained, except gold dust. The English were expelled from Lantor, and Rohn, or Pulo Rohn, prior to the massacre of Amboyna; but seized the whole Spice Islands in 1796, and restored them to their Batavian masters by the treaty with France, 1801.

* Asiatic Register, 1800, p. 216.

† Ternat only surrendered to the English on the 21st June, 1801, as appears from the Gazette of Jan. 2d, 1802.

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AUSTRALASIA.

IN the introduction to the description of the Asiatic Islands, the reasons for this new division of the earth have been already illustrated. It has also been observed that this appellation cannot be justly extended to the numerous isles in the Pacific Ocean, which may either be admitted as a sixth division of the globe, or considered as a distinct appendage to Australasia. But such is the prodigious extent of the Pacific, that it seems more proper to regard these innumerable islands as a separate grand division, the more especially as to connect them with Australasia would infer that they all lay at least to the south of the equator, while nearly one half is situated to the north of that line. Yet a respect for ancient usage may occasion some delay in the general admission of these new divisions of the earth, and even in this work they are not formally admitted, nor intituled, as such; but are arranged as divisions of the Asiatic quarter, with which they have a greater connection than with any other of the admitted portions, not only from their relative position, but because the language and manners indicate, even in the remote isles of Polynesia, a connection with the Malays in southern Asia; the passage from the Asiatic isles being, as it were, step by step; while towards America there is a wide expanse, seemingly destitute of islands, or of consequent communication.*

* Some recent German geographers have considered Australasia and Polynesia as *synonimous terms*, in contradiction, as already explained, to the first inventor of these appellations. It is true that this fifth part of the world, as the Germans call it, would not even then exceed the wide extents of Asia or America; but it seems preferable, upon several accounts, to consider Australasia and Polynesia as two great and distinct MARITIME divisions of the globe. The first denomination cannot justly be applied to islands which extend thirty degrees to the *north* of the equator, being on the contrary strictly connected with a position at least to the south of the line. Polynesia would be therefore far more proper as a general term, but cannot with equal justice be applied to New Holland, supposed to be a *continent*, and to the circumjacent islands, the characteristic feature of which is not their *number*, but their size; while in Polynesia, as here accepted, the characteristic feature consists in innumerable small islands. The name of Australasia becomes also the more

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It will occur to the learned reader that the division even of the other quarters of the world is, in many instances, modern and arbitrary. General Strahlenberg first suggested that the Uralian mountains formed a natural barrier between Asia and Europe, an idea which has been universally followed. Many of the ancients consider Egypt as a part of Asia; but the moderns have fixed a more precise and accurate boundary. It is perhaps to be wished that North and South America had received distinct continental appellations, a defect which cannot now be remedied. But where no general name has yet been imposed, and the novelty would contribute greatly to clearness and precision, there seems no rational objection to its acceptation. The boundaries between Europe and Asia, and between Asia and Africa, may be called arbitrary lines; and even that between Asia and America is only a strait of thirteen leagues. Such being the case there can be no objection from usage to the divisions assumed between Australasia and the islands in the oriental archipelago; or, in like manner, for the western boundaries of Polynesia.*

These considerations being premised, it will be proper briefly to review the boundaries of Australasia; for in a work of science, and still more in one of general instruction, it is more proper to incur the charge of repetition than that of obscurity, especially where the subject is new and has never been properly illustrated. The western boundary, as already mentioned, may be taken in the meridian from the south of Sumatra, or extended to 100°, or even 90°, east from Greenwich; but as few or no isles of consequence have yet been discovered in that direction, the strict demarcation may be discovered by future circumstances.

A like observation may be applied to the southern boundary of Australasia, which, as including New Zealand, and some isles not far distant, must be extended to the southern latitude of 50°, or even of 60°, where the islands of ice begin to appear.

The most difficult boundaries are those on the north and east. A wide and vacant channel seems to divide the north-west part of Notasia, or New Holland, from the isles of Sunda, or Sumatran chain. From the north cape of Van Diemen, longitude 131° east from Greenwich, a line ascends to the north between the Indian and Pacific oceans, leaving in the former the isles of Banda, Ceram, Myfol, and Gilolo; while in the Pacific, and belonging to Australasia, are Timorlaut, Waijoo, and other isles immediately connected with Papua. This line being extended in the same direction about two degrees to the north of the equator, turns

proper, because it not only implies a continent but the reminiscence that this region supplies the place of the ideal Terra Australis, after which geographers and navigators so long inquired in vain. The admission of both these divisions seems also the more desireable, as some geographers have regretted that North and South America had not received distinct appellations; for too great extent in any division only leads to laxity and confusion of ideas, and either a vague brevity, or a needless diffusion of expression. Mr. Dalrymple, an excellent judge, approves of these two divisions assigned by De Brosses. (Pref. to Collect. of Voyages.)

* If rejected as divisions of the globe, they must of course be arranged among the Asiatic Islands, in which case the appellations may be still retained.

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east into a wide channel of separation between the Carolines, &c. and New Ireland, and other isles belonging to Australasia. Bending south-east, Sir Joseph Bank's Isles and the New Hebudes are left in Australasia, while a considerable interval leaves the Feejee islands in Polynesia. Thence a wide and open sea gives the line of demarcation an ample sweep, about six or seven degrees to the east of New Zealand, when bending south-west it joins the southern boundary.

From these indications it will be perceived that Australasia contains the following countries.

1. The central and chief land of Notasia, or New Holland, with any isles which may be discovered in the adjacent Indian ocean, twenty degrees to the west, and between twenty and thirty degrees to the east, including particularly all the large islands that follow:
2. Papua, or New Guinea.
3. New Britain and New Ireland, with the Solomon isles.
4. New Caledonia, and the New Hebudes.
5. New Zealand.
6. The large island called Van Diemen's land, recently discovered to be separated from New Holland by a strait, or rather channel, called Bass' strait.

In the subsequent brief description of these extensive countries, the popular names must be accepted, however capricious or objectionable they may appear.

I. New Holland.

Some suppose that this extentive region, when more thoroughly investigated, will be found to consist of two, three, or more vast islands, intersected by narrow seas, an idea which probably arises from the discovery that New Zealand consists of two islands, and that other new straits have been found to divide lands in this quarter, formerly supposed to be continuous. But on the other hand Papua or New Guinea has been recently ascertained to be continuous; what were formerly thought to be disjunctive straits having been found to be mere inlets and bays. However this be, the most recent and authentic charts indicate New Holland as a country fully entitled to the appellation of a continent.

Extent. The length from east to west is about 43 degrees of longitude, in the medial latitude of 25°, that is about 2340 geographical miles, or 2730 British. The breadth from north to south extends from 11° to 39°, being 28 degrees, 1680 geographical miles, or 1960 British. Europe, the smallest of the ancient continents, is supposed to be about 3300 British miles in its utmost length, and its greatest breadth 2350, so that Mr. Pennant rather exaggerates when he assimilates the size of Europe and Notasia, the latter being a quarter less than the fomer. But the proximity of so many large islands recompenses this defect: and the whole of Australasia will probably be found greatly to exceed the European continent. It must at the same time be remembered that New Holland may be discovered to consist of two or more immense islands, so that Australasia is not admitted as a new continent, but merely as a new division of the globe; in which view this and Poly-

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nesia may be termed maritime divisions, while the four ancient quarters are strictly terrene.

It is probable that the northern parts of Papua were not unknown to the Chinese; but Marco Polo does not seem to indicate even Java, far less any lands to the south or east of that island.* As there is no shadow of evidence that the Chinese had discovered New Holland, there is room to believe that the first civilized people to whom it was disclosed were the Spaniards or Portuguese, the earliest European navigators in this portion of the globe. As in the year 1580 Portugal became subject to Spain, and was incorporated with that kingdom till 1640, the discoveries which happended during these sixty years are indifferently ascribed to the Spaniards or Portuguese. An ancient map now lodged in the British Museum has been thought to evince that a considerable portion of the coast now called New South Wales was known to the Spaniards or Portuguese, but the precise epoch of the map or discovery seems uncertain.† It would indeed be a tedious and fruitless inquiry

* His mention of Arabia, and of the African islands of Zanzibar and Madagascar, seems derived from the Arabian merchants, whom he met with in the east, and affords no argument for his knowledge in this quarter.

† An excellent geographer, M. la Rochette, informs me that the names are from the Portuguese, and to this people he imputes the earliest discoveries in this quarter, their settlements in the Moluccas, &c. being to the south of the Spanish. But he does not believe that the name supposed to indicate Botany Bay refers to that position.

The author has recently inspected this remarkable map, which formerly belonged to the Earl of Oxford, or in other words, was in the Harleian library, to which it was restored by Sir Joseph Banks in 1790. It is a large vellum roll, on the plan of a Mercator's chart of the world, but without longitudes or latitudes, and is numbered in the MS. Catalogue at the British Museum 5413. Instead of being Spanish or Portuguese, as has been reported, it is entirely French, and the chief names very large and distinct, as in South America *Terre du Bresil*, &c. &c. It is so constructed that the south point is at the top of the map instead of the bottom, as now usual.

To the south of Asia is a large island, corresponding in position with our New Holland. On the south of *Java*, which is here placed south of *Sumatra* (Sumatra), is a narrow strait between Java and this large island; and Timor appears to the north-east. The large island is called *Jave la Grande*; and several names are marked on the west and east coasts, among the latter being *Coste des Herbaiges*, or the Coast of Plants (rather herbage or pasture), which has been thought to correspond with Botany Bay, but it is too far to the north, even supposing that this large island represents New Holland. To the south of the *Coste des Herbaiges* are three other names, at considerable distances; first, *Coste de Gracal*; then an extensive and very projecting promontory, called the cape *de Fremose*, which is followed at a considerable distance to the south by *Goufre*, that is a gulf, or rather large bay. The terminating line of the map intersects this large island, and leaves its extent uncertain. At a considerable distance to the north-east appears the *Zipangri*, or Japan of Marco Polo, which is drawn with an arbitrary outline, and without any names of places.

As it has been already shewn that the Great Java of Marco Polo is in the island of Borneo, there is vehement reason to suspect that this supposed New Holland is merely the island of Borneo, laid down in a wrong position, which to a person versed in ancient maps will not appear wonderful. Perhaps the draughtsman, who by the writing of the names must have intended the south to be uppermost, had before him a map of the Greater and Lesser Java, in which the north was uppermost, and the error might have happened even if

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to investigate the claims of various navigators to the mere site of a new region, or even a brief casual visit; and the claim is only admissible in most important instances, such as the landing of Colon or Columbus in America, after he had discovered the West Indies. For it would be invidious to rob that great man of this important and immediate consequence of his prior discoveries.

The Portuguese being supplanted by the Dutch, the latter are regarded by the learned president De Brosses as the chief discoverers of Australasia, between the year 1616 and 1644.* The first discovery he dates in the month of October 1616, when the western extremity was explored by Hartog. The *northern* part, called *Diemen's Land*, was dis-

he had already given Borneo its proper situation. In the globe by Martin Behaim, 1492, Java Major is in a corresponding position, as appears from the print in the *Voyage de Pigafetta*, Paris, an 9. 8vo. This map indeed shews a far superior knowledge in other respects, and seems to have been constructed about 1540: but the appellations of *Java la Grande* and *Zipangri* sufficiently indicate that, in this part, the author laboured under imperfect accounts, and erroneous positions; and the narrow strait between the large island and Java, with the absence of New Guinea, and other circumstances, appear to shew that this supposed New Holland is perhaps the offspring of ignorance and error, being merely a repeated and wrong positson of Borneo, the real Greater Java.

Since this note was written Mr. Planta, chief librarian of the British Museum, mentioned to the author a curious manuscript there, Bib. Reg. 20. E. ix being a set of charts, or rather maps, intituled a *Hydrographie*, by John Rotz, who calls himself servant to Henry VIII; and it is dated at the end 1542, in the thirty-fourth year of that king's reign. This most curious and important MS. is written on vellum in English, but the dedication is in French; and Rotz was perhaps a Fleming, who came over with Ann of Cleves 1540. Besides a calender, and some instructions for navigation, there are several maps executed with great care and elegance, particularly a planisphere at the end, which well deserves to be published. In this, and in the second map, New Holland is laid down as it appeared in modern maps after the supposed discovery by Tasman. Other parts are also striking, as the *coast of Labrador*, with four Portuguese names: *New fonde Londe, where men go fiabing;* and *Cape Bretons*, with several names betwixt it and Florida. There is also *La Bermuda*, with some isles to the north-east now unknown.

The author collated these maps with the large map above mentioned, but inclines to think that Rotz is the original, as he retains many Portuguese words, which in the other are translated into French. In both the west coast of Borneo appears in its proper place, with *Porto de Borneo* and *Baxos de Borne*, (in the large map *Port de Borne, Bassee de Borne;*) and in the same isle *mont de St. P.* and *Yslets de St. Paul*. North of Borneo is *I. de Polonan* (Palawan); and on the east the Moluccas. In the large map Borneo is an oblong square, much too small in size; and the strait between Little and Great Java, resembling a large river, seems to be called *Rio Grande*, while on the west is *Yola de Lame*. Rotz calls the supposed New Holland *the land of Java;* and to the north are *Florez* and *Tymor*. His Taprobana is Sumatra; and his Little Java, modern Java; while in Pigafetta's voyage, 1522, Balli is Little Java; and Greater Java is the island now so called. Upon the whole the author inclines to retract his opinion that the Greater Java of these maps may be Borneo; and rather to infer that, in the enthusiasm of enterprize, after the voyage of Magalhaens, the Spaniards and Portuguese had discovered the northern parts of New Holland, more than a century before the pretended Dutch discoveries. But neither interfere with the discovery of the south-east part by our immortal Cook.

* De Brosses, i. 426.

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closed by another Dutch navigator, named Zeachen, who bestowed the appellation in honour of Anthony Van Diemen, governor general in the East Indies, who returned to Europe with incredible treasures in 1631. It is to be concluded that this governor encouraged such discoveries, for his name was imposed on various regions in this part of the world. In like manner Carpenteria was named from General Carpenter, being discovered in 1628.

In 1642 that celebrated navigator Tasman leaving Batavia with two ships, performed almost a circuit of Australasia, and discovered the *southern* land of *Van Diemen*, with New Zealand, and some isles of less consequence. It would be foreign to the present purpose to detail the other discoveries which preceded the voyages of Cook in 1768, 1772, and 1776, which, from the superior amplitude and accuracy of the details, may be said to amount to a new discovery.

The eastern coast having been carefully examined by Cook, and justly appearing of great importance, was formally taken possession of in the name of the king of Great Britain 1770. On the close of the American war it being difficult to select a proper place of transportation for criminals sentenced to that punishment by the laws of their country, this new territory was at length preferred in 1786, and the first ship sailed from Spithead on the 30th January 1787, and arrived on the 20th of the same month in the following year.* Botany Bay being found to be a station of inferior advantages to what were expected, and no spot appearing proper for the colony, it was immediately resolved by Governor Phillip to transfer it to another excellent inlet, about twelve miles further to the north, called Port Jackson, on the south side of which, at a spot called Sidney Cove, this settlement is now fixed. Port Jackson is one of the noblest harbours in the world, extending about fourteen miles in length, with numerous creeks or coves.† This new colony met with considerable difficulties in regard to subsistence, and the expense was considered as too great for the object. But men of more extensive and philosophical views beheld with complacence the design of transferring the English race and name to such a distant and important region of the globe, which might supply new objects to commerce and science, and in the course of a few centuries present as it were another America, a country of rising knowledge and civilization in the midst of a benighted and savage region of the globe. Nor were views of ambition and glory undelighted with this new diffusion of the great and surprising people of a remote European isle, in the most distant extremities of the navigable ocean.

The general eye, however, little accustomed to such telescopic views, only beheld the present difficulties and expenditure, and from the degraded character of the mass of the colonists expected nothing but confusion, intestine broils, and consequent dereliction. It is however to be hoped that, as situation is frequently the sole cause of crime, a change in this respect may gradually lead to moral conduct. In all events those periods have elapsed in which children were held

* Collins, p. ii.

† Broken Bay is another most capacious inlet, being an estuary of the Hawksbury, and probably of other rivers, while Port Jackson only receives two or three small streams.

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contaminated by the faults of their fathers; and in the course of a generation or two the stream may run pure, while the mud of the fountain has subsided. And to the eye of a candid philosopher, who cannot, with the fanatic Rosseau, prefer the crimes of savages to the faults of civilized society, and it may perhaps appear that even now the new territory has gained an accession of virtue. For where the murder of innocent children, in revenge for the faults of their parents, is not only permitted, but practised with attendant circumstances of deliberate and infernal cruelty, an English criminal may comparatively be reputed a virtuous citizen.* It is indeed to be lamented that the punishment of death so frequent in England, and so useless in every point of view, is not almost universally changed into transportation; and in the few instances in which it is unavoidable it ought to be accompanied with long and lugubrious solemnity, as in some parts of Germany. In one case, in particular, life is sported with, when it might be of the utmost consequence to a rising colony. A young woman convicted of child-murder is impelled by motives of shame and honour, which despise every human law; but removed from this situation, she may become a fruitful and excellent mother.

Some unexpected misfortunes attended the new colony, the sheep being stolen while the cattle wandered into the woods. Meanwhile turtle and birds were procured from Howe island, and a small settlement was made in Norfolk island, as a more fertile spot, but especially with a view to the cultivation of the flax plant of the New Zealand kind, from which great expectations were entertained. For a minute account of the progress of this interesting colony till 1797, the reader may consult the work of Mr. Collins, who held an eminent situation in the establishment; and which, from the details of savage life and manners, and the singular character of the colony itself, cannot fail to present most new and important views of human nature and society. A space of about fifty miles around the colony had then been explored, and two rivers called Nepean and Hawksbury, and some mountains, had been discovered. The cattle were found grazing in a remote meadow, in 1795, after they had been lost for seven years, and had increased to a surprising degree. The most recent accounts seem to authenticate the flourishing state of the colony. The mode of cultivation has been improved, coal and rock salt discovered; and there is room to expect that this wide territory will not be found deficient in the usual riches of nature.

Inhabitants. These historical outlines being premised, it will be proper to offer a brief and indeed necessarily defective description of this new continent, as it is conceived to be, in its original state. From the accounts of various navigators, there is room to infer that this extensive tract is peopled by three or four races of men, those observed in the south-west being described as different from those in the north,† and both from those in the east, with whom alone we are intimately acquainted. These are perhaps in the most early

* Collins, p. 587.

† Yet the description of our great navigator Dampier, who visited this part in 1688, presents a great similarity with that of the natives in our own colony near Port Jackson. (Vol. i. p. 453.)

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stage of society which has yet been discovered in any part of the globe. They are merely divided into families, the senior being styled Be-ana; or Father, which highest of their titles they also applied to Governor Phillips. Each family or tribe has a particular place of residence, and is distinguished by adding *gal* to the name of the place; thus the southern shore of Botany Bay is called Gwea, and the tribe there Gwea-gal. Another tribe, numerous and muscular, has the singular prerogative of exacting a tooth from young men of other families, the sole token of government or subordination. No religion whatever is known, though they have a faint idea of a future existence, and think their people return to the clouds, whence they originally fell. They may be said to be exactly one degree above the brute creation; and, like monkies, are great mimics. They are of a low stature, and ill made; the arms, legs, and thighs, being remarkably thin, perhaps owing to their poor living on fish, the only food of those on the coast, while a few in the woods subsist on such animals as they can catch, and climb trees for honey, flying squirrels, and oppossums.* The features of the women are not unpleasant, though approaching to the negro. The black bushy beards of the men, and the bone or reed which they thrust through the cartilage of the nose, gives them a disgusting appearance; which is not improved by the practice of rubbing fish oil into their skins, as a protection from the air and mosquetos, so that in hot weather the stench is intolerable. They colour their faces with white or red clay. The women are marked by the loss of the two first joints of the little finger of the left hand, as they were supposed to be in the way when they coiled their fishing lines. It is however not improbable that this practice, and the extraction of a tooth from the boys, may be mere initiations, rude lessons that they may learn to bear pain with apathy. The children are seldom disfigured except by accidents from fire; and their sight is suprisingly acute. Some are nearly as black as African negroes, while others exhibit a copper or Malay colour, but the hair is long, not wholly like the African. Their noses are flat, nostrils wide, sunk eyes, thick brows and lips, with a mouth of prodigious width, but the teeth white and even. "Many had very prominent jaws; and there was one man who, but for the gift of speech, might very well have passed for an ourang-outang. He was remarkably hairy; his arms appeared of an unccommon length; in his gait he was not perfectly upright; and in his whole manner seemed to have more of the brute, and less of the human species, about him, than any of his countrymen. Those who have been in that country will, from this outline of him, recollect old We-rahng.†

The huts are most rudely constructed of the bark of trees, in the form of an oven, the fire being at the entrance, while within are smoke and nastiness. Here they sleep promiscuously, if not interrupted by their frequent enmities and assassinations. Fish are killed with a kind of prong, or taken, by the women, with lines of bark and hooks of the mother of pearl oyster, rubbed on a stone till the proper form be obtained: the fish are often broiled on a fire laid on sand in the canoe. Beasts are taken in a kind of toils. Caterpillars and worms are like-

* Collins, 550. † Ib. 554.

wise articles of food. The canoes are made of bark extended on a timber frame.

Manners and Customs. The gallantry of these savages towards the fair sex, Rousseau would doubtless have greatly admired. The courtship consists in watching the lady's retirement, and then knocking her down with repeated blows of a club or wooden sword; after which the truly matrimonial victim is led streaming with blood to her future husband's party, when a scene ensues too shocking to relate. The woman thus ravished is called a wife; and polygamy is common. Both sexes are naked; and the girls first learned from the Europeans that there was such a thing as shame. Parturition is easy, and a few hours after the mother walks about her usual business. The infant is for a few days placed on a piece of soft bark, but is soon removed to the mother's shoulders, where it sits with its little legs across her neck, securing itself by catching hold of her hair. The name is transferred from some bird, beast, or fish. The boys throw reeds and balls, and amuse themselves with stealing little girls, whom they beat and abuse in imitation of the marriage ceremonies. The solemnity of paying the tribute of teeth seems to be performed every four years, and is represented in many plates published by Mr. Collins, being a truly singular delineation of savage life. In some parts of this ceremony the form and character of man seem despised, and the superiority of brutes acknowledged, by walking like quadrupeds, and the ambitious imitation of a tail. Power is however supposed to be conferred over the dog and the kangooroo, and the other parts seem an initiation in war and pain: but the whole is strangely degrading to the dignity of human nature.*

These poor savages are also slaves of superstition, believing in magic and witchcraft and ghosts, the latter being the nightmare: they have also spells against thunder and lightning, and pretend to foretell events by the meteors called falling stars. They are subject to a disease resembling a violent itch; but for their venereal complaints they seem indebted to Europeans. They have not only personal property in their weapons and fishing tackle, but some are supposed hereditary proprietors of certain spots, perhaps assigned as rewards for public services, or acts of great bravery. They have names for the sun and moon, some few stars, the Magellanic clouds, and the milky way. Young people are buried, but those who have passed the middle age are burnt; a rude tumulus being erected by way of tomb.

Language. Of the language Mr. Collins has given an ample vocabulary, and it is reported to be grateful to the ear, expressive and sonorous, having no analogy with any other known language; but the dialects of the various regions seem entirely different. Whether these people be remains of aboriginal tribes from the most southern extremities of Asia, or have passed from Madagascar and the eastern shores of Africa, are matters of future discovery and investigation.

Climate and Seasons. From its situation on the southern side of the equator, the seasons are like those of the southern part of Africa and

* "Is man no more than this? Consider him well.—Thou art the thing itself; unaccommodated man is no more but such a poor, bare, forked animal as thou art." Shakspeare's Lear; act iii. scene iv.

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America, the reverse of those in Europe; the summer corresponding with our winter, and the spring with autumn. Mr. Collins found the weather in December very hot, but the climate was allowed to be fine and salubrious. The rains were heavy, appearing to fall chiefly about the full and change of the moon; and at intervals there were storms of thunder and lightning. In Norfolk island there is what may be called a rainy season, from February to August. As the south is in this hemisphere the region of cold, there must be great difference in the temperature of this wide continent; which may also be affected as usual by chains of mountains, and other circumstances yet undiscovered.

Face of the Country. It would be idle to attempt any delineation of the general aspect of this country, of which we only know the mere skirts and extremities; so that a traveller who had landed at Brest, and inspected a small portion of Bretagne, might as well aspire to give an account of Europe, while in fact he knows but little of France. The small particle known seems hilly, but not mountainous, partly covered with tall trees clear from underwood; which last however covers extensive tracts towards the shores, in which large swamps also occur.* The soil around Botany Bay, is black and fat, and fertile of plants, whence the name arose; but these favourable appearances were counteracted by great disadvantages. Considerable quantities of maiz and wheat have since been raised, particularly on Norfolk island; and it is to be hoped that when experience has indicated the proper means, this may be rendered a productive country.

Rivers, Lakes, and Mountains. Concerning the rivers, lakes, and mountains of New Holland there is little information, but they may probably be discovered to be on a very large and extensive scale. A chain of mountains is said to run north and south, between 50 and 60 miles inland, but not easily accessible on account of numerous deep ravines. Basaltic columns often appear; and in Howe island they rise to such a height as to be visible at the distance of twelve leagues. Mr. Pennant represents the timber of the forests as brittle and entirely useless; but this defect may be remedied by plantations. European fruit trees having already prospered greatly; and it is probable that the interior regions may present a vegetation very different from that of the coast. It is reasonably inferred that the vine might be planted with great success.

Zoology. This wide country presents a peculiarity in the animals, mostly of the opossum kind, leaping habitually upon the hind legs: the chief in size is the kangooroo, some kinds of which are elegant. The native dogs are of the chacal kind, and never bark; they are of two colours, black, or white with tinges of red, and some are very handsome.† Among the few other quadrupeds not yet described, are weazels and ant-eaters, with that singular animal, the duck-billed platypus, in which nature seems to delight in transgressing her usual law, the jaws of a quadruped being elongated into the complete bill of a bird. Among the birds are the brown eagle, several falcons, and many elegant

* Pennant's Outlines, iv. 108; but this excellent naturalist seems prejudiced against the country and the colony.

† Collins, 567.

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parrots, ravens, crows, a large king-fisher: there are also bustards and partridges, with some pigeons. A new kind of cassowary must not be omitted, said to be seven feet in length:* it is not uncommon, and the flesh tastes like beef. Among the aquatic birds are the heron, a kind of ibis or curlew, and gigantic pelicans. There are also peculiar ducks and geese; and the black swan is a rare progeny of the new continent. "It is in size superior to the white. The bill is of a rich scarlet; near the tip is a small yellow spot. The whole plumage of the most intense black, except the primaries and secondaries, which are white, the eyes black, the feet dusky: it is found in Hawksbury river, and other fresh waters near Broken bay, and has all the graceful actions of the white kind†."

The tortoises, called green turtle, abound in the isles of Norfolk and Howe; and likewise appear on the coast of New Holland. There are several lizards and serpents. Of the fish may be named dolphins, porpoises, and a singular amphibious kind which leaps like a frog, by the help of strong breast fins; so that nature has not only here blended the bird with the quadruped, but brought fish upon land. The blue crab, of an ultramarine colour, is of exquisite beauty.

Mineralogy. As the interior mountains of this immense region have not been explored, little can be said concerning the mineralogy, which is probably richest in the northern, or hottest parts. In 1797 a ship from Bengal being wrecked on the southern shore, of seventeen men, only three reached the settlement, after a journey of eighty days, and on their way discovered immense strata of coal, which may prove far more valuable than mines of gold‡. Perhaps the vessels recently sent to explore the southern parts may make other important discoveries, besides completing the geography of the shores||.

If this account should seem rather too extensive, let it be considered that it describes a new continent, a real Terra Australis, now little known, but which in the year 1900, or 2000, may be found to present such great and singular topics, that a learned and precise pen may dedicate a large volume of geography to this one portion of the globe.

II. Papua, or New Guinea.

First Discovery. This country is one of the most interesting in Australasia, as partaking of the opulence of the Moluccas, and their singular varieties of plants and animals. The land of Papua is said to have been first discovered by Saavedra, a Spanish captain, in 1528, who had sailed from Mexico by the command of Cortez, to explore the Spice islands from that quarter**. It is asserted that Saavedra imposed the name of New Guinea, as believing that this region

* Pennant, iv. 127. † ib. 130. ‡ Collins, 617.

|| The southern shores are said to have been explored by Peter Van Nuitz, in January 1627. De Brosses, i. 453. They seem to recede in the middle, and towards the east by a vast bay, with an isle, is said to have been recently discovered.

** De Brosses, i. 159.

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was under the same meridian with the African Guinea; but as it is scarcely possible that a mariner could be so much deceived, it is more likely that this appellation, which some say was only given by Le Maire near a century after, was merely considered as synonymous with another, that of the "Isles of Gold." Other Spanish navigators enlarged this discovery, and the strait between this country and New Holland was explored by Cook, while the learned President De Brosses, and even Bouganville, the French circumnavigator, had doubted whether such a passage existed*. This extensive island is still far from being completely investigated. On the north, what was formerly conceived to be a strait, is delineated with the soundings in Mr. Arrowsmith's chart of the Pacific, under the name of Maclure's inlet: and an opposite large bay on the east, was also conceived to insulate another portion. In the south-east, Dampier's strait divides Papua from New Britain; but it is not improbable that in this direction the Louisiad of Bougainville may be discovered to be joined, at least in part, with Papua, while other parts may consist of detached isles. It is thought that the unfortunate La Perouse was completing this discovery, when fate terminated his labours. Amidst this uncertainty, Papua is conceived to be a vast island, extending from the Cape, absurdly styled of Good Hope, in the mariners' very confined vocabulary, but more properly White Point, in the north-west probably to Cape Rodney in the south-east, a length of more than 1200 miles, by a medial breadth of perhaps 300, and thus far superior in size to Borneo, formerly reputed the largest of islands.

Original Population. On this extensive territory, in a situation so highly favoured by nature, and probably enriched with the choisest productions, there is no European settlement. The inhabitants of the northern part are called Papous, whence the name of the country. The traditions bear, that they are brethren of the Moluccans, and the language seems to have no affinity with that of New South Wales, but is probably connected with that of Borneo, &c. on the west, and that of New Britain and the isles on the other side, being part of the wide Malay diffusion†. The inhabitants are black, and even said to have the woolly hair of negroes; but this last circumstance will probably be discovered, as in New Holland, to proceed from art, and in some parts it would seem, that the inhabitants have the true Malay complexion and features. In the interior, is a race called Haraforas‡, who live in trees, which they ascend by a notched pole, drawing it after them to prevent surprise The appearance of the Papuans and their habitations is grotesque, the latter being built on stages in the water;

* Introduction to Cook's last Voyage (by Bishop Douglas, p. xvi) The reader who wishes for more particular details concerning the progress of discoveries in the Pacific may be referred to the work of De Brosses, often quoted, and to Mr. Dalrymple's collection of Voyages in the Pacific, 1770, 4to. The learned French publication was translated by John Callender, Edin. 1776, 3 vols. 8vo, who seems disposed to pass it as an original under the title of *Terra Australis Cognita*.

† See Vocabularies in De Brosses, i. 410.

‡ Ferrest, p. 109, says that some of them have long hair, but they are mostly mere Papuans of a lower class.

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in which, however they resemble the Borneans and other nations in the Asiatic isles. The women seem the most industrious in making mats, and pots of clay, which they afterwards burn with dry grass, or brush wood, nay, they will even wield the axe, while the men are indolent, or preparing for the chace of wild hogs*.

"The aspect of these people is frightful and hideous; the men are stout in body, their skin of a shining black, rough, and often disfigured with marks, like those occasioned by the leprosy: their eyes are very large, their noses flat, mouth from ear to ear, their lips amazingly thick, especially the upper lip; their hair woolly, either a shining black, or fiery red: M. Sonnerat imagines the last to be owing to some powder. It is dressed in a vast bush, so as to resemble a mop, some are three feet in circumference, the least two and a half; in this they stick their comb, consisting of four or five diverging teeth, with which they occasionally dress their frizzled locks to give them a greater bulk; they sometimes ornament them with feathers of the birds of Paradise; others add to their deformity by boring their noses, and passing through them rings, pieces of bone, or sticks; and many, by way of ornament, hang round their necks, the tusks of boars. The heads of the women are of less size than those of the men, and in their left ear they wear small brass rings. The men go naked excepting a small wrapper round their waists, made of the fibres of the cocoa. The women use a covering in general of the coarse Surat *baftas*, tucked up behind, so as to leave their bodies and thighs exposed to view. The children have no sort of clothing†."

The religious tenets of the Papuans have been little examined. They make tombs of the rude coral rock, sometimes with sculptures. The chief commerce is with the Chinese, from whom they purchase their instruments and utensils. Their returns are ambergreese, sea slugs, tortoise shell, small pearls, birds of Paradise, lories, and other birds, which the Papuans dry with great skill. Some slaves are also exported, probably captives taken in intestine wars. Some were offered to Captain Forrest at a low rate, but he had before bought an eminent linguist.

Our great navigator Dampier, whose work bespeaks wonderful intelligence for that period, made several discoveries on the coast of Papua, and the adjacent isles. He was particularly struck with the proas, which are picturesque and well-managed. As this country has been little explored, even recent accounts are very imperfect.

The coasts of Papua are generally lofty, and, inland, mountain rises above mountain, richly clothed with woods. The shores abound with cocoa trees, and the whole country seems to have impressed every navigator with delight, and well deserves more cultivated and industrious inhabitants. But by a singular fatality many extensive and beautiful portions of the globe are thinly inhabited by a few savages, while cold and barren provinces are the crowded seats of civilized nations. Could a whole nation be transferred from the north of Europe to Papua, what a change in situation and sentiments, what an accession of private plenty and happiness, and what an increase of public power!

* Forrest's Voyage to New Guinea. Pennant's Outlines, iv. 208.

† Ib. iv. 202. Sonnerat, ii. 122, says that they resemble the people of Guinea on the African coast, which led to the name of New Guinea.

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The natural history of this country is little known, but the zoology is striking and romantic. Papua is the chosen residence of the splendid and singular birds of paradise, of which ten or twelve sorts are enumerated by Mr. Pennant. They seem to be chiefly caught in the adjacent isles of Arroo, being supposed to breed in Papua, and reside there during the wet monsoon; while during the dry, or western, they retire to Arroo, migrating in flocks of thirty or forty. During their flight they cry like starlings, but when surprised with a strong gale, they croak like ravens, and ascend to the superior regions of the air. They alight on the highest trees, seeming to feed on berries, and according to some on nutmegs and butterflies; and are either shot with blunt arrows, or caught with bird-lime or nooses. The bowels and breast bone being extracted, they are dried with smoke and sulphur, sold for nails or bits of iron, and exported to Banda. Papua also boasts of elegant parrots and lories; while the crowned, or gigantic, pigeon almost equals a turkey in size.

Captain Forrest to whom we are indebted for an interesting voyage in these seas, only visited the harbour of Dory in the northern part of Papua, so that our knowledge of this large island remains extremely imperfect. He observed at a considerable distance, the mountains of Arfac of a remarkable height. Near the harbour of Dory he found in some little isles abundance of nutmeg trees, and there is room to infer that the land of Papua is not destitute of the same productions, and may perhaps also boast of cloves. Now that the Spice islands are restored to the Dutch, by the treaty of 1801, a settlement in Papua might become an object of serious consideration, and by the discoveries of our able countryman Dampier we have certainly a claim equal to that of any other nation.

Papuan Isles. Some of the small islands adjacent to this comparative continent, are better known than the main land of Papua. At the north-west extremity the chief isles are Waijoo, and Salwatti; and the smaller isles of Woleket, Famia, Piamis, Wagiol, Luib, Waig, and Siang, may be added from Captain Forrest's chart, for the sake of fixing the boundary between Australasia and the islands in the oriental archipelago; Gag and Gibbi, from their proximity to Gilolo, belonging to the latter.

Further to the south are the Papuan islands of Arroo and Timorlaut, the boundary here passing on the east of Nila, one of the small Asiatic isles, among which Serro must also be classed. On the east of Banda the boundary may pass on the south of Mamabek, then winding north-west to the east of Mysol will leave Popo in the oriental archipelago; while Woleket, as already mentioned, classed with the Papuan islands. This being the only part of the division between the Asiatic islands and Australasia, which is rather intricate, these hints will not be found unnecessary for the sake of precision.

Waijoo. Waijoo, or Wadjoo, is an isle of considerable size, and is said to contain 100,000 inhabitants. The land is high, with lofty mountains, and on the north side are two excellent harbours Piapis and Offak*.

* See Forrest's Voyage and the Chart. Mr. Pennant's Outlines, iv. 205, says on the *south* side, which Forrest did not visit. It is observed with

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Salwatti is also a populous island, governed by a Raja. The people of these two large islands resemble those of the main land of Papua, being a singular race of horrible appearance and great ferocity. They live on fish, or turtle, and Sago, that tree abounding in Papua, but the substance is chiefly prepared by the people of Waijoo.

Timorlaut is another Papuan island of considerable size, but of which there is no particular account.

Arroo. The Arroo islands appear, in Arrowsmith's chart, divided into five intervening straits, and as already mentioned, are the remarkable seats of the birds of Paradise. The chief product is sago, and the people make expeditions to the main-land, where they sieze captives and sell them at Banda, a remarkable feature in the negro character, at this great distance from Africa. In political geography the Arroo isles have been considered, since 1623, as belonging to the Dutch East India Company, and subservient to those of Banda†.

On the north of the main land of Papua are the isles of Mysory and Jobi, with several others of smaller consequence; nor indeed are the discoveries sufficiently complete to trace with precision the northern shores of Papua, or the isles adjacent.

It seems probable that the land called Louisiad by Bougainville, is either an extension of Papua, or islands adjacent to it on the south-east. In either case, when it shall have been sufficiently explored, the description will probably fall into this division.

III. New Britain, and New Ireland, with the Solomon Isles.

First Discovery. New Britain was first explored and named by Dampier, that navigator having passed a strait to which his name is given, between this country and Papua. In 1767, Captain Cateret passed through a channel between New Britain and New Ireland, which last is a long slip of land stretching from north-west to south-east, and it is also probable that New Britain may be found to be divided into two or more islands. In these parts the nutmeg tree is found abundant, being perhaps the most remote region towards the east, of that valuable plant. Dampier visited a bay in New Britain called Port Montague, A. D. 1700, and found the land mountainous and woody, but interspersed with fertile vales and beautiful streams. The country seemed very populous, the natives resembling those of Papua, and navigating their canoes with great skill. The chief product seemed to be cocoa nuts, but there were yams and other roots, particularly ginger; and the sea and rivers swarmed with fish. In the main land, and adjacent isles, there are several volcanos.

Inhabitants. Captain Cateret found the natives of New Ireland very hostile, having lances headed with flint. Their faces were

regret that such gross inaccuracies are frequent in the works of that ingenious but hasty compiler.

† De Brosses, i. 443.

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streaked with white, and their hair dabbed with powder of the same colour. They are black, and said to be woolly headed, but without the thick lips or flat nose of the negro. Some of the canoes of New Ireland were ninety feet in length, formed out of a single tree. Bougainville also visited this country, and observed here the pepper plant, and that singular insect the walking leaf; while among the numerous birds, was the great crowned pigeon.

A more ample description is unnecessary, as these countries are far from being completely discovered. The same observation must be extended to what are called the Solomon Islands, which appear to have been discovered by Mendana, who sailed from Lima to the westward 1575. The name was imposed, as usual, by ignorant mariners, who supposed that king Solomon derived his gold from these Islands; but while it is even doubtful whether the isles now called those of Solomon be the same with those of Mendana, the appellation becomes doubly absurd, and it would be better to impose some new name*.

Solomon Islands. The Solomon Islands, as laid down in Mr. Arrowsmith's chart of the Pacific, may be considered as a large group extending from Lord Anson's isle, or the Bouka of Bougainville, in the north-west to the isle called Egmont by Carteret in the south-east. Some of the islands, towards the centre, seem of considerable size, particularly in length. If these be the Solomon Isles of the Spaniards, it is asserted that they are rich in gold. Some of the natives were of a copper colour, others of a deep black, with a wrapper of linen round the waist, while the neck was ornamented with little beads of gold. The canoes were small, two being commonly fastened together. In baskets of palm leaves they carry a kind of bread made of roots†. These islands are the land of the Arsacides of Bougainville.

IV. NEW CALEDONIA, AND THE NEW HEBUDES.

These regions were discovered by Captain Cook in 1774; but Bougainville in 1768 had sailed through the New Hebudes; and the most northern is supposed to be the land of the Holy Ghost of Quiros.

New Caledonia is a large island, the southern part of which in particular has been little explored. The natives are said to be a muscular race, of a deep brown complexion, resembling those of New Zealand. Future discovery may add several interesting particulars concerning this division. D'Entrecasteaux, who was sent in quest of La Perouse, visited the southern coast of New Caledonia.

The north-western part of this large Island was explored by captain Cook, who says that this district was called Balade. The name of Tee, which in the Society Isles implies a guardian spirit, seems here to denote a chief. The women are more chaste than in the other isles of the Pacific. The houses are neat, some having carved door posts, and

* Dalrymple, i. 47, and see De Brosses, i. 173. Mr. Dalrymple thinks, p. 46, that the Solomon Isles of Mendana are the New Britain of Dampier. See also his Dissertation prefixed to vol. i.

† De Brosses, i. 259.

they rise in the form of a bee hive, warm, but full of smoke. The dress is a slight wrapper; and the hair, which is frizzled, not wooly, is ornamented with a comb, while the beard is worn short. They subsist on roots and fish, the country being very barren and rocky. In New Caledonia Dr. Forster found large rocks of quartz, with layers of gold coloured mica, blended with serpentine, hornblende, talc, and garnets*. The bread fruit and cocoa nut are scarce; but many new plants were observed.

Mallicollo. Among the New Hebudes Captain Cook has given the most particular account of Mallicollo in the north, and Tanna in the south. Dr. Forster thought that the people of the former, who are ugly and diminutive, had a language different from any they met with in the voyage.

Tanna. In Tanna there is a remarkable volcano, with some hot springs. Here are found plantains, sugar canes, yams, and several kinds of fruit trees. The natives rather resemble those of New Holland than the Friendly Islanders, and are particularly dexterous in the use of the spear.

V. NEW ZEALAND.

First Discovery. This country was first discovered by Tasman in 1642, but he did not land. The natives however came on board, and some intercourse took place, during which seven of the Dutch, who had gone ashore unarmed, were cruelly slaughtered. The people were described to be of a colour between brown and yellow, with long black hair resembling the Japanese.

Our great navigator Cook explored these regions in 1770, and discovered a strait which divides the country into two large islands. The southern was supposed to be called by the natives Tavia Poenamoo, and the northern Eaheianomawe, names which equal the Russian in length, and which might well be contracted. The first is not less than 600 British miles in length, by about 150 in medial breadth; and the second is little inferior in size.

* When Dr. Forster went with Cook, on his second voyage, 1772, mineralogy was in a very imperfect state, Bergman, who published his book in 1782, being the father of the improved system now followed. Yet Dr. Forster's observations are very feeble and meagre, even for that period; and his tedious quarto volume is filled with declamation, while solid facts are neglected. He is, however, more minute than usual concerning the strata of New Caledonia and the New Hebudes. Reefs of coral rock abound in this archipelago. In New Caledonia the soil of the plains is a sandy black mould, the sides of the hills, yellow clay with mica; the higher parts of quartz and mica, tinged red, or orange, with iron. Garnets are also found in petrosilex and in several places white transparent quartz, soap rock, and asbestos. He supposes that the mountains of New Caledonia and New Zealand are the most likely to contain rich metallic veins, as being composed of primitive rock.

In Mallicollo the soil is of a yellowish sandy clay. In the isle of Ambrym (Ambrin) there is a volcano, and of that in Tanna, the ashes diffuse a fertile soil. Tanna also presents cliffs of clay, mixed with aluminous earth, lumps of pure chalk, and tripoli. Sulphur abounds, with marks of copper.

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One of these islands appears to be far more fertile than the other; but both enjoy a temperate climate, similar to that of France. The natives were again observed to be of a brown complexion, little deeper than the Spanish, and some are even fair. They equal the tallest Europeans in stature; and their features are commonly regular and pleasing. It is singular to observe such a diversity between them and the natives of New Holland, when theory would expect to find them the same race of men. So far as present discoveries extend, the natives of New Holland and Papua seem to display an African origin: while most of the other islands in the Pacific appear to have been peopled from Asia.

Mr. Collins, to his interesting account of the English colony in New South Wales, has subjoined some information concerning New Zealand, chiefly derived from two of the natives, who were carried to Norfolk island to teach the management of the flax, one of whom drew a rude map of his country published by our author. Their features approach the European, and the nose of one was aquiline. By their report the northern island is divided into eight districts, governed by their respective chiefs, and others who are subordinate to them. These provinces are often in a state of warfare; and the captives taken are undoubtedly devoured by the victors. At other times a little traffic is carried on in flax, and green jad, of which they make axes and ornaments. On the west side of the northern isle there is a large river but only navigable for canoes. The ranks are, the chiefs, and their officers; the priests, whose authority is equal, if not superior; and the common people.

Manners and Customs. "The New Zealanders inter their dead; they also believe that the third day after the interment the heart separates itself from the corpse, and that this separation is announced by a gentle breeze of wind, which gives warning of its approach to an inferior Ea-tooa (or divinity) that hovers over the grave, and who carries it to the clouds. In his chart Too-gee has marked an imaginary road which goes the lengthways of Eaheinomawe, viz. from Cook's strait to the North Cape, which Too-gee calls Terry-inga. While the soul is received by the good Ea-tooa, an evil spirit is also in readiness to carry the impure part of the corpse to the above road, along which it is carried to Terry-inga, whence it is precipitated into the sea.

"Suicide is very common among the New Zealanders, and this they often commit by hanging themselves on the slightest occasions; thus a woman who has been beaten by her husband will perhaps hang herself immediately. In this mode of putting an end to their existence both our visitors seemed to be perfect adepts, having often threatened to hang themselves, and sometimes made very serious promises of putting it into execution, if they were not sent to their own country. As these threats however were used in their gloomy moments, they were soon laughed out of them.

"It could not be discovered that they have any other division of time than the revolution of the moon, until the number amounted to one hundred, which they term "Ta-ice E-tow," that is one Etow, or hundred moons; and it is thus they count their age, and calculate all other events.

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"Hoo-doo and Too-gee both agreed that a great quantity of manufactured flax might be obtained for trifles, such as axes, chissels, &c.; and said that in most places the flax grows naturally in great quantities; in other parts it is cultivated by separating the roots, and planting them out, three in one hole, at the distance of a foot from each other. They give a decided preference to the flax plant that grows here, both for quantity and size.

LANGUAGES. "It may be expected (says Governor King) that, after a six months acquaintance between us and the two New Zealanders, we should not be ignorant of each others' language. Myself and some of the officers, (who were so kind as to communicate the observations they obtained from our visitors,) could make our ideas known, and tolerably well understood by them. They too, by intermixing what English words they knew with what we knew of their language, could make themselves sufficiently understood by us. During the time they were with us I did not possess any account of Captain Cook's Voyages, but since their departure I find from his first voyage that it has great similitude to the general language spoken in those seas."*

Captain Cook's last voyage contains considerable information relative to the southern isle, from which a few brief hints may be added, as this region only yields to Papua in size and consequence. Storms were found to be not only frequent but violent, and often changed in their direction by the height of the mountains, which at these times are always loaded with vapours, whence it may seem that they are calcareous. The unhappy natives live in constant apprehensions of mutual destruction; and each party earnestly besought Captain Cook to exterminate their enemies, a true picture of savage life, which is to be traced from the genuine practice and experience of human affairs, and not from idle theories of poetry, or of philosophy. Their revenge is sanguinary, and indulged even to the most brutal cannibalism; the more shocking, as they believe that the soul of a man, devoured by his enemy, is doomed to perpetual fire. They have no *morai*, or place of worship; but the priests alone address the gods for prosperity. It appears that the jad is found in lakes, to which it is borne down by the mountain torrents. This substance is called *Poenammoo*, and a lake being styled *Tavi*, thence a mistaken appellation has been given to the southern island, by our able navigator, as he himself remarks.† This candid observation affords an additional proof of the futility of many names admitted into our maps; and it must rarely occur that uncivilized nations have any general term for a country, or large island, as they cannot distinguish where there is no different object, nor standard of comparison.

The enormous lizards described by the natives are probably alligators. From the observations of the surgeon it appears that the bases of the mountains are sand-stone; that the soil resembles yellow marl; and even the hills are covered with trees of the most lofty luxuriance, seeming to retain their foilage till expelled by the succeeding leaves

* Collins, p. 524.

† Third Voyage, i. 140. Yet this isle seems to be called Poenammoo, in the map drawn by a native, and pulished by Mr. Collins.

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in spring, for in June, which corresponds to our December, the verdure was complete. The mountainous nature of the country* seems to be an obstacle to future improvement; but this remark may perhaps be confined to the northern part near Queen Charlotte's Sound, and a great diversity may be naturally expected in such wide regions. The flax of New Zealand has excited particular attention, being of a beautiful silky appearance, and the plant remarkably tall. The culture has been attempted both in France and England without success; perhaps from some remarkable difference in soil, or the entire reversion of seasons. The birds seem to be often peculiar in species and colour; and it is not a little remarkable that, in this extensive land, no quadruped was observed, except a few rats, and a kind of fox dog, which is a domestic animal with the natives. Nor was any uncommon mineral seen except the green jad, which, according to other accounts, is found in the channel of a large river in small thin layers.

The general dress is an oblong garment made by knotting the silky flax: and the ears are ornamented with bits of jad or beads, the face being often besmeared with a red paint, seemingly iron ochre mingled with grease. The habitations are far superior to those in New Holland; and the boats are well built of planks, raised upon each other, and fastened with strong withes. Some are fifty feet long, and so broad as to be able to sail without an out-rigger, but the smaller sort commonly has one, and they often fasten two together by rafters. The large canoes will carry thirty men or more; and have often a head ingeniously carved, with a human face distorted by rage: for in savage life images are rarely pleasant, but commonly shew the evil passions which are generally felt. They bake their fish in a rude oven; and the use of bread is supplied by a kind of fern, which yields a gelatinous substance like sago. They are ingenious mechanics with their rude tools, which are mostly of jad. Their weapons are spears and javelins, with the pa-too, a kind of club or rude battle-axe; and in combat they distort their features like demons. The yet warm bodies of their enemies are cut in pieces, broiled, and devoured with peculiar satisfaction.† The warlike actions of their ancestors are preserved in traditional songs, which are frequently sung, and accompanied with their rude flute.‡

VI. Van Diemen's Land.

First Discovery. This is the last great division yet discovered of the wide expanse of Australasia. The name was imposed by that eminent Dutch navigator Tasman, as already mentioned, in honour

* According to Dr. Forster, Obs. 31, the highest mountain observed in his voyage was mount Egmont, on the northern isle of New Zealand, covered with perpetual snow, so that he argues the height to be fourteen thousand feet. The climate, ib. 116, seems moist, and clouds are sometimes observed of a beautiful green.

† Cook, ib. i. 162.

‡ Dr. Forster, Obs. 17, says that the southern isle presents a thin stratum of black mould, under which seems to be a nephritic rock of pale yellow intersected by veins of quartz. Basalt, argillaceous shistus, and pumice, also appear.

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of the Dutch governor general in the East Indies.* It has been recently discovered to be an island, in the form of an oblong square, about 160 British miles in length by half that breadth, being divided from New Holland by a strait, or rather channel, more than thirty leagues wide, which in recent maps is called Bass's strait, and contains a chain of small islands running north and south. During his last voyage Captain Cook, in January 1777, visited Diemen's land for supplies of wood and the water, and grass for animals on board. They were met by some of the natives, who were entirely naked; of a common stature, but rather slender, the skin being black, and the hair as woolly as that of any native of Guinea, but their lineaments were more pleasing than those of African negroes. The hair and beards, and of some of the faces, were smeared with red ointment. They seem to prefer birds to all other food, and the kangooroo would appear to be selected among animals, because by walking on two legs it somewhat resembles a bird. The land is chiefly of a good height, diversified with hills and vallies, and every where of a greenish hue, being well wooded and watered. The Fluted Cape appears to be composed of a very fine white sandstone, which in many places bounds the shore, and the soil is either sandy or consists of a yellowish mould, and in some places of a reddish clay. The forest trees seem to be all of one kind, growing quite straight to a great height, and may be well adapted for masts. The only quadrupeds discovered were opossums and kangooroos; and the birds cannot differ much from those of New Holland, to which there is as it were a passage by intermediate isles. The hovels resemble those of New Holland; but sometimes large trees are hollowed out by fire to the height of six or seven feet, so as to form a rude habitation. Captain Cook's account of the language of New Holland in general must be corrected from the more recent and exact information afforded by Mr. Collins.†

* There is another Van Diemen's land, a northern cape of New Holland. Such duplicate names are injurious to the study of geography, and ought to be formally abrogated, if a Board of Nomenclature, so much wanted, were instituted. The southern Van Diemen's land, or one of the isles of New Zealand, should be called Tasmania, in honour of the discoverer.

† Captain Flinders supplies some additional information in his "Observations on the Coast of Van Diemen's Land," &c. 1801. 4to. He says, p. 3, that the capes are mostly basaltic, and he includes the Fluted Cape, the columns being sometimes single, sometimes grouped like stacks of chimnies. Upon the island of cape Barren are found kangooroos, and the new animal, called *womat* by the natives near Port Jackson, resembling a little bear. Furneaux's isles are mostly of a coarse quartz, and likewise Wilson's promontory in New South Wales; while the general rocks in the last are sofrish grit and ironstone. In general Van Diemen's land presents a most dreary and inhospitable shore, mottled with rocks of white quartz and black basalt. Port Dalrymple is the only harbour upon the north coast, which seems the most fertile.

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POLYNESIA.

THE boundaries of this extensive division of the globe have already been briefly mentioned in the introduction to the Asiatic Islands. A line passing due north, in the meridian of 130° east from Greenwich, will leave the Philippine Islands in the oriental archipelago, divided by a wide sea from the Pelew Isles, the most western group of Polynesia, though a few small detached isles appear to the south-west. About 20° north latitude, the line of demarcation bends north-east, so as to include the isle of *Todoslos Santos*, and that is called *Rica de Plata*, thence proceeding east so as to include the Sandwich Islands, and pass south about longitude 122° west, till it reach the southern latitude of 50° where it turns to the west, and joins the boundary of Australasia.

It is probable that future navigations may greatly improve and enlarge the geography of Polynesia, by the discovery of new groups, and the more accurate arrangement of those already known. At present the following appear to be the chief subdivisions:

1. The Pelew Isles.
2. The Ladrones, a chain extending in a northerly direction, the small islands in the Pacific seeming to be mostly the summits of ranges or groups of mountains.
3. The Carolines, a long range from east to west, so as perhaps, in strictness, to include the Pelews.
4. The Sandwich Isles.
5. The Marquesas.
6. The Society Isles, so named in honour of the Royal Society.
7. The Friendly Isles.

There are besides many isles scattered in different directions, which would be difficult to connect with any group, and indeed none of them, yet discovered, appears to be of any consequence.

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I. The Pelew Isles.

This group recently attracted considerable attention, from an ingenious and pleasing account of them, drawn up by Mr. Keate, from the papers of Captain Wilson who suffered shipwreck on these islands in 1783. The narrative is doubtless heightened by Mr. Keate's imagination, but the people appear to be a most gentle and amiable race, the gay and innocent children of nature. It is a peculiarity, which has been remarked in describing the oriental archipelago, that the small isles are the chief seats of comparative civilization, by the concentration of society. To this circumstance may be added, that in large islands the natives split into distinct tribes, generally hostile to each other, whence the pleasurable passions almost expire in the constant succession of fear and rage, while in the small islands, there being no room for secession the society becomes as it were one family. Much will doubtless depend upon the propensities of the native race, and even on the character and manners of the first settlers and their immediate descendants, but, except on the above principles, it might perhaps be difficult to account for the contrast of manners between the people of the Pelews and those of New Zealand, who are probably of one original stem*

The Pelewans are a stout well made people, rather above the middle stature. Their complexions are of a far deeper colour than what is understood by the copper hue, but not black, and their hair is long and flowing. The men are entirely naked, while the women only wear two little aprons, or rather fringes, made of the husk of the cocoa nut. Both sexes are tattooed, and the teeth are dyed black. Polygamy is allowed, and the dead are interred. There seems no appearance of religion of any kind, though they have an idea that the soul survives the body. Mild, affable, and industrious, this little tribe, like the inhabitants of Otaheite, form an exception to the general rule of savage existence. Mr. Keate has published a vocabulary of the language, which is probably a dialect of the Malay, so widely diffused through these seas.

The government is in the hands of a king, under whom there are *rupaks*, or chiefs, who also constitute a kind of nobles. The property of all the land is supposed to be vested in the sovereign; while that of the people is only personal, as a canoe, weapons, or rude articles of furniture. Our domestic poultry are here wild in the woods, and were neglected by the natives, till taught by the English that they were proper for food. Their chief nourishment appears to be fish; but they made

* Dr. Forster thinks, Obs. 358. That the original people of Australasia and Polynesia was the negro breed found in Papua, New Holland, &c. for even in Otaheite the common people are much darker than the chiefs, and perhaps of a mingled race. According to that author the Malays of Malacca gradually spread to Borneo, the Philippines, the Ladrones, and Carolines, thence to the Friendly Islands and New Zealand, the Society Islands, the Marquesas, and as far East as Easter Island. To Papua, New Caledonia, and the New Hebudes, the Malays did not bend their progress, nor to New Holland, so that these last countries remain in the possession of the primitive race. In the large islands as Borneo, Luzon, &c. the negroes retired to the interior mountains, being called Biajos, Negrillos, Zembales, Harfuris,&c.; but in the lesser isles they were conquered, and became *Toutous*

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a kind of sweetmeats from their sugar cane, which seems indigenous. The chief drink was the milk of the cocoa nut. They commonly rise at day-light, and immediately go to bath in fresh water. Their houses are raised on large stones, about three feet from the ground, being constructed of planks and bamboos, and the fire-place in the middle, secured with hard rubbish. There are large mansions for public meetings. The best knives are of mother of pearl, others of a large muscle shell, or split bamboo. They make oval vessels of coarse earthen ware. In general their articles resemble those of Otaheite, and other isles in the South Sea. The weapons are spears, darts, and slings: and the canoes are formed of the trunk of a tree, neatly ornamented.

These isles had scarcely been visited by any European till Captain Wilson landed at Oloong. Mr. Keate's account is rather romantic, than exact, for it appears that Abba Thulle was king of the isle called Polorooraa, and the English called the capital, or residence of the king, Wieew. These islands are in general of a moderate height, well covered with wood; and are circled on the west side by a reef of coral, from two to six leagues from the shore, and of great length. The ebony tree, as found in the forests, and the bread fruit and cocoa tree seem to abnund, with sugar canes and bamboos. No kind of grain was seen nor any quadrupeds except some rats in the woods, and three or four pigeons seem the most numerous: and the wild poultry have been already mentioned

II. The Ladrones.

First Discovery. This appellation implies the isles of Robbers, and was given by that distinguished navigator Magalhaens, who first discovered these islands in 1522, the natives shewing great disposition to pilfer, and much address in the execution of their designs. Pigafetta, who accompanied Magalhaens, describes the people as naked their hair and beards long, tall and well proportioned, with an olive complexion. They coloured their teeth black like the Pelewant; and there seems to be an intimate correspondence in their other manners and customs. Their canoes had outriggers, and a rude delineation of one has been published from Pigafetta's manuscript.*

According to the jesuit Gobien, who has published a particular history of the Ladrones, or Marian Islands,† the inhabitants, till the arrival of the Spaniards, regarded themselves as the only men in the world, being assured that the first man was made of a piece of rock taken from Funa, a little Island near Guam; but, according to others, he was made of earth in the latter island. When they were visited by the Spaniards they lost the primitive Guamese language. In colour, speech, manners, and government they considerably resemble the Tagals or people of the Philippines, before the Spanish conquest. These isles were then very populous, Guam, in forty leagues of circuit, having thirty thousand inhabitants. A favourite occupation of the women was to dye their teeth

* See also the supplement of De Brosses, ii, 492, for an ample account of the Ladrones.

† Paris, 1700. 12mo.

black, and their hair white; but let not Europeans smile, for we have many similar absurdities. The nobles displayed a singular pride being addressed with great respect, and it was a crime for a noble to marry a common girl. Yet the people were not enslaved, or even subject, but revered their nobles without any consequent idea of obedience. The houses were divided into four apartments, by partitions of palm leaves. In their absolute independence each man avenged his own quarrel; and wars were frequent, but not sanguinary, as the loss of one or two men decided the battle. Their magicians invoke the *Anitis*, or the Dead, whose sculls were preserved in the house, and they are anxious lest an aniti or ghost should disturb their fishing or nocturnal repose.

Tinian. In the reign of Philip IV of Spain these isles were also called the Mairans, in honour of his queen, Mary of Austria. The largest is that of Guam, but Tinian has attracted more attention, from the romantic description in Anson's voyage. There is no doubt that mariners who have been long at sea, and suffered many diseases and privations, will be infinitely delighted with any verdant land, and find beauties where none exist. Hence subsequent navigators have been greatly disappointed in Tinian. Anson found here abundant of wild cattle, of a white colour, except the ears, which are generally black or brown. But they had probably been imported by the Spaniards, as a supply for the garrison at Guam. Here were also found oranges, limes, and cocoanuts, with that celebrated and remarkable tree which bears the bread fruit.

The Ladrones are computed to be twelve or fourteen in number; but not above three or four are inhabited. Their vessels, called flying proas, have been esteemed singular specimens of naval architecture, and at a distant interval impressed Pigafetta and Anson with the ingenuity of the contrivance. The natural history of these islands is little known, It appears from the voyage of La Parouse that some of them are volcanic.

To the North of the Ladrones are many small islands, extending to Todos Los Santos, lat. 30°, those further to the North belonging to Japan. This group may either be arranged among the Ladrones, or might perhaps admit of a distinct apellation.

The Golden and Silver Isles seem to be so styled from Japanese fables, and with a few other scattered isles on the N of the Carolines merit little attention. In these seas is the stupendous rock called Lot'-Wife, rising in the form of a pyramid, and thus described by Mr. Meares in his voyage. "The latitude was 29° 50 north, the longitude 142° 23 east of Greenwich. The waves broke against its rugged front with a fury proportioned to the immense distance they had to roll before they were interrupted by it. It rose almost perpendicular to the height of three hundred and fifty feet. A small black rock appeared just above the water, at about forty or fifty yards from the western edge. There was a cavern on its south-eastern side, into which the water rolled with an awful and tremendous noise. In regarding this stupendous rock, which stood alone in an immense ocean, we could not but consider it as an object which had been able to resist one of those great convulsions of nature that change the very form of those parts of the globe which they are permitted to desolate."

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III. The Carolines.

First Discovery. This is the largest group or rather the most extensive range of islands in the Pacific Ocean.* This chain appears to have been first discovered by the Spaniards in 1686, and was named from the Spanish monarch Charles II. They are about thirty in number, and very populous, except three which were uninhabited. The natives resemble those of the Philippines, and chiefly live upon fish and cocoa-nuts: and it is probable that their language only differs in a few shades. According to the letters of the jesuits each isle was subject to its chief, but all respected a monarch, who resided at Lamurec.

They believe in certain celestial spirits, and think they descend to bathe in a sacred lake in Fallalo, but there are neither temples nor idols, nor any appearance of worship. The dead are sometimes thrown into the sea, and at others interred, the grave being surrounded with a stone wall. It is said that those of Yap worship a kind of crocodile, and have their magicians. Polygamy is allowed, and the Tamul or chief of the large isle of Hogoleu had nine wives. Criminals are banished from one isle to another.†

They donot appear to have any instruments of music, but their dances are accompanied with songs. Their only weapons are lances, armed with bone. Even in this distant quarter of the globe negro slaves are not unknown: and in one or two of the islands the breed is said to be mingled, twenty-nine Spaniards having been left on one of these islands who are supposed to have married and settled. The people of Ulea are reported to be more civilized than the rest, and appear much to resemble those of the Pelews. In 1733 Cantova, a jesuit missionary, was massacred with eight Spaniards in the isle of Mogmog.

The most considerable of the Carolines is Hogoleu, about ninety British miles in length by forty in breadth. Next is Yap, in the western extremity of this chain, but not above a third part of that size. The Caroline islands have been little visited by recent navigators, but a few small groups have been discovered in their eastern extremities, which may properly be classed in the same range.

IV. The Sandwich Isles.

First Discovery. These islands appear to have been the first discovered by our great navigator Cook, being perhaps the only detached object in which he was not forestalled by preceding navigators; but the precision and truth of his narratives concerning other regions, before only faintly described, and the discoveries of particular features and positions, justly entitle Cook to the veneration which his memory has received from all European nations. The people of the Sandwich islands are of a deep olive complexion, muscular, and well proportioned; and the productions differ little from those of Otaheite, being little further to the north of the equator than the Society

* De Brosses slightly mentions, vol. ii. p. 58, the New Pilippines, a vague and improper name of the Carolines. But see his Supplement, ii. 443, &c. for a description of the Carolines and Pelew Islands, accompanied with a curious map by Vaugondy.

† De Brosses, ib. 486.

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Islands are to the south. There is one considerable island about 280 British miles in circumference, called Owhyhee, where Captain Cook was most unfortunately slain by the natives, February 1779. The best eulogy of this great man will be found dispersed through this and other systems of modern geography, which from him derive a great accession of knowledge.

NAME IMPOSED. These islands were so named by Cook in gratitude to the earl of Sandwich, a minister who had warmly promoted his labours

INHABITANTS. The natives are rather of a darker complexion than those of Otaheite, but the features are pleasing; and the death of Cook was not owing to ferocity, but a sudden impulse of undeserved resentment. The hair is sometimes long, sometimes curled, as among Europeans: but the nose is always spread at the point, perhaps owing to the mode of salutation, in which they press their noses together. Captain King represents them as a mild and affectionate people, free from the Otaheitan levity, and the proud gravity of those of the Friendly isles.

MANNERS AND CUSTOMS. This ingenious people have even made some progress in agriculture and manufactures, yet they still sacrifice human victims, but do not eat them like the people of New Zealand, at least so far as information could be obtained. The beard is generally worn; and among the ornaments of both sexes is a kind of fan to drive away flies, made of the fibres of the cocoa-nut, or of long feathers. Like the other nations of Polynesia, they tatoo their bodies; and among females, even the tip of the tongue, because they can thus shew an ornament without elocution. The dress consists of a narrow piece of coarse cloth called the *maro*, prepared in the same manner as at Otaheite, which passes between the legs and is fastened round the loins. In battle the men throw a kind of mats over their shoulders, and this armour is neatly manufactured. On solemn occasions the chiefs wear dresses, artfully and beautifully formed of feathers. The women have only a slight wrapper, and the hair is cut short behind, but turned up from the forehead. The food consists chiefly of fish, to which are added yams, plantains, and sugar canes, while people of rank feast on the wild boar, and sometimes the flesh of dogs.

FORM OF GOVERNMENT. The government is in a supreme chief called Eree Taboo, whose funeral is accompanied by the sacrifice of two or more servants. The inferior chiefs are styled Erees; and there is a second class of proprietors, and a third of labourers, all these ranks seeming to be hereditary. Though human sacrifices be here more frequent, the other rites appear to correspond with those of the Society Islands, which shall be described in the account of Otaheite.

CLIMATE. The climate appears to be more temperate than that of the West Indies; and in Owhyhee the mountains arrest the clouds, and produce rain inland, while there is sunshine on the shore. The winds seem generally easterly, and there is a regular land and sea breeze.

ZOOLOGY. The quadrupeds, as usual in Polynesia, are few; only hogs, dogs, and rats, being discovered. The kinds of birds are

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not numerous, being, among others, large white pigeons, plovers, owls, and a kind of raven. These islands produce abundance of the bread fruit, and sugar-canes of amazing size. Upon the whole this discovery was important; and Owhyhee is the largest island yet found in the wide extent of Polynesia.

After leaving Easter island, the unfortunate La Perouse visited the Sandwich islands, which he seems to suppose are the same with the Mesa of Spanish charts; though, from an error, in not observing the currents, they be placed sixteen or seventeen degrees more to the east, an usual fault in the Spanish charts, which thus bring many Polynesian islands far too near the American shores: but the French navigator subjoins an honourable testimony in favour of Cook. "Full of respect and admiration for the memory of that great man, he will always appear to me the greatest of navigators." Still New Caledonia, and what is called Sandwich Land in the antarctic ocean, seem acknowledged new discoveries of our great navigator.

La Perouse visited the isle of Mowee, to the north of Owhyhee, and observed the mountains, the woods, the cascades; and the habitations of the natives so numerous, that the space of three or four leagues might be supposed a single village. They brought hogs and fruits; and their canoes had outriggers. La Perouse confirms the account of their mild and beneficent manners; and in general refers to the English narratives, the exactness of which he greatly applauds.

V. The Marquesas.

First Discovery. These islands were discovered by Mendana, who imposed the name in honour of Don Garcia de Mendoza, marquis of Caniente, viceroy of Peru, whence they are sometimes styled the Isles of Mendoza. From the account of Mendana's discovery it appears that the people of the Marquesas were an elegant race, the women being remarkably beautiful, with tolerably fair complexions, so as to exceed in personal appearance the finest women of Lima*. They were clothed, from the breast downwards, with a fine piece of bark cloth. They had idols of wood: and their canoes sometimes held from thirty to forty mariners. The temperature of the air is so dry as not in the least to moisten linen left on the ground during the night. The blanc-mange of Mendana is probably the bread fruit. The names given to the several islands, by the first discoverer, have since yielded to the native appellations. One of the best known to Europeans, is the isle of Ohittahoo, to the south of the large isle Ohevahoas.

Subsequent Discoveries. In 1774 the Marquesas were visited by Captain Cook, and in 1789 by the French circumnavigator Marchand, whose idle voyage has been recently published at Paris with so much pomp and compilation. Marchand however observed some isles to the northwest of this group, afterwards descried in 1798 by an American Captain called Ingraham, which are inhabited, but are not laid down in Arrowsmith's chart of the Pacific, nor probably in any other which has yet appeared. If the longitudes and latitudes published

* De Brosses, i. 251.

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by Ingraham be tolerably correct, these islands may be regarded as belonging to the group of Marquesas*. The best recent account of the latter is that given in the Missionary Voyage, Captain Wilson having visited the Marquesas in 1797.

The natives are said to surpass all other nations in symmetry of shape, and regularity of features; and were it not for the practice of tatooing, which blackens the body by numerous punctures, the complexion would be only tawny, while the hair is of many colours, but none red. Some of the women are nearly as fair as Europeans, and among them tatooing is not so universal†. The sister of the chieftain had some parallel lines on her arms; while others had only slight punctures on the inside of their lips, and even upon their eyelids. A long narrow piece of cloth was wrapped round the waist, the ends being tucked up between the thighs, while a broad piece of their cloth was thrown over the shoulder, reaching half way down the leg. But this dress seems ceremonious, as may appear from an incident in the same amusing journal.

"Our first visitors from the shore came early; they were seven beautiful young women, swimming quite naked, except a few green leaves tied round their middle: they kept playing round the ship for three hours, calling Waheine! (that is women,) until several of the native men had got on board; one of whom, being the chief of the island, requested that his sister might be taken on board, which was complied with: she was of a fair complexion, inclining to a healthy yellow, with a tint of red in her cheek; was rather stout, but possessing such symmetry of features, as did all her companions, that as models for the statuary and painter, their equals can seldom be found. Our Otaheitan girl, who was tolerably fair, and had a comely person, was notwithstanding greatly eclipsed by these women, and I believe felt her inferiority in no small degree; however she was superior in the amiableness of her manners, and possessed more of the softness and tender feeling of the sex: she was ashamed to see a woman upon the deck quite naked, and supplied her with a complete dress of new Otaheitan cloth, which set her off to great advantage, and encouraged those in the water, whose numbers now greatly increased, to importune for admission; and out of pity to them, as we saw they would not return, we took them on board: but they were in a great measure disappointed, for they could not all succeed so well as the first in getting clothed; nor did our mischievous goats even suffer them to keep their green leaves, but as they turned to avoid them, they were attacked on each side alternately, and completely stripped naked."

The religious ceremonies resemble those of Otaheite; and they have a Morai in each district, where the dead are buried under a pavement of large stones. Their deities are numerous, and the chiefs seem to have little power, custom alone being followed instead of laws. Like

* Mr. Arrowsmith supposes them the Marquesas. The central south lat. of nine degress and long 141° from London would place them to the west of the Marquesas, whence the distance is said to be thirty-five leagues, and the largest isle about ten leagues in circuit. Other discoveries may probably take place near the equator, from long. 160° to 175°.

† Missionary Voyage, London, 1799, 4to. p. 145.

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most uncivilized nations they have no regular meals, but eat five or six times a day, or oftener. The women seem more subjected to the men, than at Otaheite. Polygamy is chiefly practised by the chiefs. The fore-skin is slit before the age of puberty. The canoes are made of wood, and the bark of a soft tree, being commonly from sixteen to twenty feet in length, the prow carved in the rude resemblance of a human face.

No quadrupeds were discovered except hogs, but there are tame poultry, and the woods are filled with many beautiful birds. In one of these isles an English missionary was left, in the benevolent intention of discouraging mutual slaughter, and human sacrifices. But if the christian doctrine of monygamy be strictly enforced, it is improbable that the other doctrines will be received: and we are taught by many examples, that mahometanism is more successful in the oriental regions.

The largest isle of the Marquesas, Noabeva, is not above half the size of Otaheite: and in general the multitude of small islands in these seas presents a wonderful variety in the works of nature, the largest island yet discovered in Polynesia being Owhyhee, which is about 100 British miles in length.

VI. The Society Isles.

This group has attracted more attention than any other in Polynesia, and our admiration of Otaheite has excited some degree of ridicule on the continent. The unfortunate La Perouse observes, in one of his letters "I flatter myself you will see with pleasure, that, in the course of so long a voyage, I shall have no occasion to put in at those everlasting Society Islands, about which more has been written than concerning several kingdoms of Europe; and I confess to you that I congratulate myself on having nothing to say either about Otaheite, or Queen Oberea."* But it may be said, in perfect candour, that this accomplished seaman shews some little jealousy of the English discoverers; and is led to prefer the French group called the islands of Navigators, which perhaps, in size and population exceed the Society Islands.

In such a wide expanse of ocean it seems preferable to impart the same appellation to very extensive groups, of which there is a sufficient and allowed instance in the Carolines. All the islands therefore from long. 160° west from Greenwich, to the eastern extremity of Polynesia, may be included under the general name of Society Islands. Some may probably include in Polynesia the detached and remarkable spot called Easter Island, which seems to be peopled by the same race, if intervening isles do not rather connect it with South America. But this isle shall be briefly described at the end of the present article.

Otaheite. The range of Society islands may thus even exceed the Carolines in number, amounting to sixty or seventy. Of these Otaheite is still by far the most considerable in size, being about 120 miles in circumference. It consists of two peninsulas, joined by

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a neck of land, about three miles in breadth, the smallest peninsula to the south-east, being about fifteen miles in length, by ten in breadth, while the large peninsula to the north-west is almost circular, and about twenty-five miles in diameter: the whole length being thus about forty geographical miles, or forty-six British. From the map drawn by Captain Cook, and republished with some improvements in the Missionary Voyage, this island appears to consist of two mountains, a larger and smaller, joined by the naarow ridge above mentioned; and the inhabitants are entirely confined to the level coasts. This circumstance seems universal in Polynesia, as the natives crowd to the shores for fish, their chief aliment; and it is probable that the original colonies having settled on the coast, indolence has prevented them from visiting the inland heights. Nor is probable that even in the large countries of Australasia* a similar singularity may be observed, the scarcity of animal food probably compelling the natives chiefly to reside on the shores.

Near the central summit of the large mountain of Otaheite, which in circumference, though not in height, resembles Etna, there is a curious lake of some extent: but no river appears, there being only rivulets, which spring from the skirts, and pursue a brief course of two or three miles to the ocean.

Inhabitants. The natural colour of the inhabitants is olive, inclining to copper. Men exposed to the sun become very dark, but the women are only a shade or two deeper than an European brunette. They have fine black eyes, with white even teeth, soft skin, and elegant limbs; while their hair is of a jetty black, perfumed and ornamented with flowers†. But with all these advantages they yield infinitely in beauty to the women of the Marquesas, the face being widened from continual pressure from infancy, which by distending the mouth, and flattening the nose and forehead, gives a broad masculine appearance. Hence it is evident that the Grecian and academical forms, given by artists void of real taste or precision, to the people of the South seas, in the prints that accompany the English and French voyages, are totally false and imaginary. Nor can there be a greater injury to books of genuine character, and solid information, than this practice, which renders the modern prints far inferior in every respect to some ancient representations of De Bry.

But while the women thus sedulously endeavour to destroy their natural beauty, they are of the most affable and engaging manners; and seem entire strangers to those unaccountable caprices, sudden frowns, and violences of temper, which form the chief domestic pestilence of civilized society. Always generous and good humoured, they are slow to take offence, and easily pacified, never entertaining senti-

* In the chart which accompanies the Missionary Voyage Polynesia is absurdly called Lesser *Australasia*, as if it were wholly to the south of the equator, or even approached the Terra Aurtralis of exploded maps. Australasia is named Greater *Australasia*, while the latter word only means *Southern things*, and cannot with any degree of grammar be applied to a region. Cicero in his dream of Scipio, uses *Australis regio* merely for a southern country: but the plural neuter of the adjective cannot be used as an appellation.

† Miss. Voyage, 327.

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ments of long and slow revenge, of which the sex seems, in many countries, far more capable than the men. As usual in warm climates their beauty not only ripens, but decays, sooner than in more northern regions. The chiefs are taller than the people, few being under six feet; and as personal size and strength are the chief distinctions in early society, it is probable that their ancestors were selected for these advantages, which have been continued by superior food and ease. The dress of both sexes is nearly the same, except that the men wear the *Maro*, a narrow piece of cloth wrapped round the waist, and passing between the thighs. An oblong piece, cut in the middle to admit the head, hangs down before and behind; and another piece is wrapt round the middle, and a square mantle is thrown over all. Both sexes wear garlands of flowers and feathers; and the women use a kind of bonnet made of cocoa leaves. Parturition is easy; and the infant can swim as soon as it can walk.

Their voice and speech are soft and harmonious; and their dialect is the Italian of the Pacific ocean. Their rude manufactures are truly wonderful, and evince the greatest ingenuity. Their dwellings are about eighteen feet in length, with a few articles of furniture, such as trays, baskets, mats, and a large chest. According to the missionary accounts there is no public appearance of immodesty; and they impute their noted exhibitions to the bribes of their English visitors.

RELIGION. Their deities are numerous; each family having its Tee, or guardian spirit, whom they worship at the Morai; but they have a great god, or gods of a superior order, styled Fwhanow Po, or the progeny of night. The divinities in general are styled the Eatooa. The chief seems to be Tane, who has a wife Taroa: from them spring Po the night, Mahanha the sun, &c. Man also proceeds from a divine origin, as in the Japanese mythology, their sole idea of creation being procreation. These benevolent people cannot conceive a future punishment; and regard the idea as only the utmost effort of human malignity. But they admit the immortality of the soul, and degrees of future eminence and happiness, proportioned to its virtue and piety. They have a high idea of the power of spirits, and believe that the beautiful peak near the harbour of Taloo in Eimeo, was dropped by them in its romantic situation. The Tahouras or priests, are numerous, and have great power; but all the chiefs officiate on certain occasions. The human victims are commonly criminals, and are killed during sleep; a curious instance of ferocious superstition, mingled with mildness of character. The women are not admitted to the Morais, far less sacrificed as at the Friendly Isles. For a more ample account of their manners and customs the reader is referred to the Voyage of the Missionaries;* which, from longer opportunities of observation, affords the most ample and authentic intelligence. From the general view of their manners, it will not appear wonderful that this enchanted region excited great attention, not only in England, but throughout Europe; as every bosom felt that here were freedom, and ease, and happiness, which the

* Some were left in Otaheite, but their endeavours do not appear to have been crowned with success, and most of them have since returned to the settlement at Port Jackson.

artifices of some, and the superstition of others, have so much contributed to banish from civilized society, where life itself has become a ceremony. Yet the numerous intestine wars, of one little isle against another render even this state of uncivilized life little desirable.

ZOOLOGY. The chief animals are hogs, as usual in all the isles of Polynesia, and they have also dogs and poultry. The bread fruit tree abounds; and large plantations are made of cocoa trees and plaintains. The seas swarm with fish and in catching them great ingenuity is displayed, the canoes having outriggers, or being doubled, by lashing two together.

Though the people of the Friendly Islands be superior in improvements and government; and the women of the Marquesas far superior in beauty; yet the people of Otaheite are so polite and affable, and their manners so engaging, that joined with the romantic beauty of the country, the numerous streams, and the superabundance of spontaneous productions, this island is still preferred to all others in Polynesia, and those of the Navigators must be further explored before any comparison can be instituted.

It has already been mentioned that this island consists as it were of two mountains. These are encircled by a border of low land, from the beach to the rising of the hills, in some places near a mile in breadth, while in others the rocks impend over the sea. The soil of the low lands, and of the vales which intersect the ridge towards the ocean, is remarkably fertile, consisting of a rich blackish mould. When the trade wind gets far to the south it rains on that side of the island; but on the north the showers are less frequent and violent. In the latter the harvest of bread fruit begins about November, and continues till the end of January: while in the southern part it often begins in January and continues till November: but there are variations from the nature of the tree, the number of species being about thirty. On ascending the hills, the soil changes from a rich loom into veins of clay, or marl, of various colours. Beneath is a soft sandstone, of a brownish colour; and basalt also abounds of a fine grain, of which they used to make their tools. The singular cliff called Peeha appears to be basaltic.* The black volcanic glass, called obsidian, is said to be found in the rivers, and also pumices, sure indications that a volcano once existed; but that any country, or island, is of a volcanic origin may perhaps be safely doubted, as only little rude rocks, or isles of a most diminutive size, have been thus erected within human record. The large fresh water lake abovementioned may perhaps have been the crater of the volcano. This lake is said to be fathomless; but its shores are well peopled by an industrious race. The chief harbour of Otaheite appears to be Matavia, on the north side of the island; b there is another of similar note in the South-East called Langaras.

The next island in regard to size is Ulitea: and the others of this group, even taken in its utmost extent, are of far inferior dimensions to

* Forster, Obs. 21, says that the Society isles are encircled with reefs of coral, the lower hills are of red ochrous earth, the higher of a kind of argillaceous rock, with coarse granite, or the saxum of Linnæus. Black and grey basalt is also found, and it is said crystals of native sulphur. Several of the rocks are full of schorl, and there is lamellated iron stone of a reddish brown. The Friendly isles are similar.

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Otaheite; nor has any striking singularity yet been observed which might claim attention in a general description. In Ulitea some difference was remarked in the mode of constructing the Morias, here composed of four walls built of coral rock. The natives of the numerous islets to the East are said to be more ferocious than those of the isles visited by Cook.

As an appendage to this article some account may be added of Easter Island, a detached and remote region, which however, so far as the discoveries yet extend, seems rather to belong to Polynesia, than to South America. This isle appears to have been first seen by Davis in 1686; and was afterwards visited by Cook and La Perouse. It is of a triangular form, the longest side being about twenty-five miles in length, and at one extremity there appears to have been a volcano. The buildings and rude colossal images, here found, impressed Dr. Forster with the idea that Easter Island had once been held by a people more advanced in society than the present inhabitants; but this opinion appears to be overturned by the observations and prints in the voyage of La Perouse. The abundance of loose stones seems to have led the natives to use them in constructing their cottages; and the door is so low that it will only admit a person creeping on hands and knees. The hut is often connected with a cave or cellar, in which these islanders deposite their food, tools, and little property, the height being little more than five feet. The wall of that side of the cottage, which is most exposed to the wind, is considerably higher than the rest, to protect the roof, which serves as a terrace. There are also long edifices constructed of wood. The Morais, or burial places, are of a more remarkable structure; being a kind of platform, in which are fixed shapeless and uncouth masses, rudely carved in imitation of busts, sometimes about fifteen feet in height, and the face five feet. In these a red lava, very porous and light,* is chiefly employed; and the French engineer observes that any difficulty in the erection is easily solved, for "by the assistance of arms, cords, two levers, and three wooden rollers, it is easy to transport and raise the most enormous masses." In fact there appears no more art than is exerted in the rude carvings found throughout the isles of Polynesia. There is scarcely a tall tree in Easter Isle, nor any brook, the water being retained in cavities made in the rocks; but the natives are very industrious, and plant paper-mulberries, and bananas with regular fields of potatoes and yams. They have the same language, and features with the other natives of Polynesia; but as, upon a scientific comparison, it may perhaps be discovered that the extinct empire of Peru was in great part peopled by a similar race, this argument will not of itself include Easter Isle in that division.†

* Perhaps coral rock, for with the French every thing is lava. Yet according to Dr. Forster, Obs. 19, there are many volcanic appearances in Easter Island, particularly Obsidian.

† The isles of Galapagos, or Tortoises, seem to be quite uninhabited, and unquestionably belong to South America. What are called Low Islands belong to the Society group, and are commonly little level patches which only produce cocoa nuts.

The idea that the Peruvians or Mexicans might also have been Malays seems sufficiently exploded by the table of languages given by Dr. Forster, p. 284. See also the Peruvian vocabulary in the description of America.

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VII. The Friendly Isles.

This group extends chiefly from South-West to North-East including the Fejee isles, those called the isles of Navigators, and several detached isles in a more northerly position the name was imposed by Captain Cook, in testimony of the disposition of the people; but they had been discovered by Tasman in 1643, who called the chief isle, now styled by the native term Tongataboo, by the name of Amsterdam.* His account of the manners of the people corresponds with the more recent and precise information given by Captain Cook, and other late navigators. They are contrasted with those of Otaheite, as being of a more grave and regular behaviour; and the power of the chiefs is more despotic. A greater security of property has also superinduced more ingenuity and industry: but in general the manners and customs approach so nearly that a further account might appear repetition; and the persons of the natives are likewise similar, though the chiefs seem inferior in stature.

Tongataboo. In the Missionary Voyage, 1797, there is an interesting map of Tongataboo, which thence appears to be a plain country, in an universal and surprising state of cultivation, the whole island consisting of inclosures, with reed fences about six feet high, intersected with innumerable roads. The whole is such a picture of industry as to form a reproach to nations who call themselves civilized. The length of Tongataboo is only about sixteen miles, by about eight as its greatest breadth. On the north side there is a lagoon, with several isles, constituting a tolerable harbour. The commodities are, as usual, hogs, bread fruit, cocoa nuts, and yams.

Though the people of the Friendly Isles be more free from wars than those of the group before described, yet Tongataboo is often stained with human victims; nor do their ideas of property prevent their stealing from strangers. Some missionaries were here left, who imparted some useful arts to the natives, but the rats were very destructive to the European plants. These, with hogs, dogs, and guanoso constituted the only quadrupeds, till cats were left in the voyage of 1797. The morais seem to be here called fiatookas; and are constructed in the form of terraces with high steps, the material being coral stone.

Fejee isles. To the North-West are the Fejee isles, which the English missionaries discovered to be now subject to Tongataboo. It would seem, from Mr. Arrowsmith's elaborate chart of the Pacific, that the principal Fejee isle, and perhaps some of those discovered by Captain Bligh, are much superior in size to Tongataboo. To the North of the latter is an isle, about the same size, discovered by Maurelle in 1781, and by him called Mayorga.

Islands of Navigators. From the accounts of La Perouse it would appear that the Isles discovered by Bouganville in 1768

* See his description and prints in Dalrymple's Collection, vol. ii. p. 75,

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and by him absurdly enough called the ISLANDS OF NAVIGATORS,* are by far the most important in this large group. At Maouna, one of these islands, Captain De Langle, Lamanan the naturalist, and nine seamen were massacred by the inhabitants, the Captain having unadvisedly given beads to a few of the chiefs, while he neglected the others. From the chart of La Perouse it appears that the largest of these islands, which he calls Pola, is about thirty-seven geographical miles in length, by abouthalf that breadth, being thus inferior to Otaheite, though far surpassing Tongataboo. Next in gradual diminution of size, and in position from West to East are Oyolava, Maouna, and Opoun.† If the accounts of La Perouse be not greatly exaggerated, the Islands of Navigators constisute the most important group yet discovered in southern Polynesia, in regard to fertility and population. At Maouna the frigates were surrounded with two hundred canoes, full of different kinds of provision, fowls, hogs, pigeons, or fruit. The women were very pretty and licentious; and the men of remarkable stature, strength, and ferocity: so that they despised the comparatively diminutive size of the French. The villages are delightfully situated in the midst of spontaneous orchards, and the huts neatly erected with rude collonades, and covered with leaves of the cocoa palm. Hogs, dogs, and fowls abounded; with the bread fruit tree, the cocoa nut, the banana, the guava and the orange. Iron and cloth were despised, and beads alone acceptable. But La Perouse, who had left France an ardent disciple of Rousseau, here found that savages are very different in practice from what they are in theory, and is forced to exclaim, "I am however a thousand times more angry with the philosophers who extol the savages than with the savages themselves. The unfortunate Lamanon, whom they massacred, told me, the very evening before his death, that the Indians were worthier people than us."‡ But La Perouse did not know that this fanaticism of Philosophy was to occasion such sanguinary scenes in his native country where an attempt was made to extinguish knowledge and civilization by men who alledged the happiness of savages as a sufficient apology for their conduct.

According to La Perouse the island of Oynlava is at least equal to Otaheite, in beauty, extent, fertility, and population; and he supposes that this isle, with the larger isle of Pola||, and that of Maouna, contain 400,000 inhabitants§. Such is the abundance of provisions, that at

* This name was given because the people had many canoes, and shewed great skill in navigating them—circumstances common throughout Polynesia, and not to be admitted in a distinctive appellation.

† In Arrowsmith's chart Pola is called Oteewhy; Oyolava is Oahtooah; Maouna is Tootooillah, and Opoun is Toomahlooah. There is no reason for preferring these unpronounceable names to those of the French, who have a prior right of discovery.

‡ iii 413.

|| In La Perouse's narrative, iii. 106, it is said that Pola is somewhat smaller than Oyolava, but his chart seems to demand the preference.

§ Ib. 414. So Cook over-rated the people of Otaheite, now ascertained to be only 16,050. Miss. Voy. Forster, Obs. 219, sagely argues that Otaheite contains at least 160,000. In like manner La Perouse's 400,000 may probably be 40,000. It is probable that there are not above 300,000 souls in all Australasia and Polynesia

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Maouna, 500 hogs, and an immense quantity of fruit, were procured in twenty-four hours. The natives of Oyolava are also of great stature, and here was observed the largest village in all Polynesia, smoking like a city, while the sea was covered with canoes. Though the people be remarkable for a ferocity of character, scarcely to be observed in any other part of Polynesia, they are still industrious and ingenious, polishing their wooden works very highly, with tools made of basalt. They have not only the bark cloth, but a kind composed of real thread, probably from flax, resembling that of New Zealand. Their speech was understood by the natives of the Philippines, being derived from the Malay, a language far more widely spread than that of the Greeks or Romans, and diffused through all the scattered isles of Polynesia. La Perouse proceeds to observe that the original inhabitants of the Philippines, New Guinea, &c. were that race of wooly-headed men, still found in the interior of the larger islands; and in some of the smaller the breed seems mingled with that of the Malays. In general the latter are remarkable for treachery and ferocity: but human character depends so much on situation, that, when free from oppression and intestine wars, the Malays appear to be an honest and beneficent people; and it is to be regretted that inquiries more scientific have not been instituted, in order to illustrate their origin.

The islands of Navigators are covered with fruit trees of various descriptions, in which wood pigeons and turtle doves swarm, and to tame them is a favourite amusement of the natives. Among the coral rocks of the shores are found many pebbles of basalt, whence La Perouse idly concludes that they are of volcanic origin, but this new theory of islands is very rarely to be admitted.

In Polynesia, as in Australasia, many important discoveries and observations remain to be made, which will gradually enlarge the bounds of geography, so that in time they may, like America, aspire to be distinct portions of the globe, and admit a corresponding extent of description. But in the present imperfect state of our knowledge it was deemed sufficient to indicate their proper arrangement in a description of the earth: for their connections with Asia are so intimate, that if, by the voice of posterity, they be rejected as grand and separate divisions, they must ever, while scientific geography exists, be considered as appendages to that quarter of the world. Yet amidst this uncertainty, the account of these extensive divisions has been restricted to as narrow limits as were compatible with any just ideas concerning their situation, inhabitants, and productions.

Botany of the Asiatic Isles, Australasia, and Polynesia.

Botany. The plants which have already been mentioned as characterizing the peninsula of Hindostan and India beyond the Ganges, form a very essential feature in the botany of those crowded groups, that geographers have distinguished by the names of the Philippines, the Moluccas, and the isles of Sunda, and which, on this account,

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may be regarded as forming a large and important appendix to the Indian continent. Situated as they are directly under the equator, and extending to the distance of about ten degrees north and south on each side of it, every thing that can be produced in vegetation by the combined influence of heat and moisture, is here exhibited in complete perfection. Being inhabited by a vigilant and warlike people, and unhealthy in the extreme to an European constitution, only a few commercial settlements have been established on the sea coasts, so that we remain almost entirely ignorant of their interior vegetable productions, many of which are probably peculiar to these countries, and require even a more intense heat than is to be found in the plains of Hindostan.

All the East Indian plants, such as the cocoa nut, the areca, the sago, the palmetto, and the great fan-palm, abound in these islands, and furnish food and wine to the natives at the least possible expense of labour: nor are they destitute of any of those fruit-bearing trees that adorn and enrich the neighbouring continent: the luscious mango, the scented eugenia, the sitodium and cynometra, remarkable for the bags of oily farinaceous kernels, resembling the almond and chesnut, that they produce from their trunks, the fever-cooling tamarind, the pomegranate, and the orange, with all its kindred species and varieties, nurtured by the free unstinted bounty of nature, offer themselves on every side to the choice of the inhabitants. The plantain tree, the ginger, the sugar cane, the turmeric, the pine apple, the yam, the sweet potato, rice, and an infinite variety of kidney beans, cucumbers, melons, and gourds, are found, both cultivated and wild, in inconceivable luxuriance; the larger grasses also, such as the bamboo, the canna, and the nardus, which have been already noted, as inhabitants of India, acquire a still more stately growth in the swamps of Java and Sumatra, than on the banks of the Ganges. The sandal wood, and the precious calambac or aloes wood, the melaleuca leucadendron, which affords the cajeput oil, and the canaria, from whose bark flows the gum elemi, the annotta, the cassia, and the ebony, together with many other valuable woods and gums, whose uses and even names are unknown to Europe, are produced in these islands in higher perfection than elsewhere. Of the plants distinguished chiefly for their brilliancy of colouring, their grace, and singularity of form, it would be in vain, without the help of painting, to attempt a description; the greater part have never been introduced into our hot-houses, and those alone who are familiar with exotic botany can call up at mention of the names of hibiscus, erythrina, æschynomene, aralia, ixora, bauhinia, and euphorbia, those images of splendor and singularity, with which they are associated in the Linnæan system.

The excessive heat and abundance of moisture that distinguish the Indian islands, constitute a climate peculiarly favourable for the growth of those plants whose active qualities and high aromatic flavour place them at the head of the vegetable world; this, therefore, is the native country of the most valued spices. Pepper, both the long and the round, is found wild, and is largely cultivated in all these islands: the laurus cinnamomum, the inner bark of which constitutes the pungently fragrant spice of the same name, is produced chiefly in Sumatra and

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the neighbouring isles: caryophyllus aromaticus, the receptacle of whose blossom is known in the European markets by the name of cloves abounds for the most part in the Moluccas; and the myristica, whose fruit is the nutmeg, and its inner covering the mace, by the mean jealousy of the Dutch East India company has been almost entirely restricted to the little islands of Banda adjoining to Amboyna. But if this part of the globe be enriched by the most precious aromatics, it is also armed with the most active and deadly poisons: the same burning sun that exalts the former matures the latter. In the island of Celebez is produced the dreadful Macassar poison, a gum resin which exudes from the leaves and bark a kind of rhus, probably the toxicodendron; this species, together with other poisonous trees of the same island, is called by the natives ipo or upas, a name now immortalized by the genius of Dr. Darwin. Such indeed is the deleterious activity of this tree, that, when deprived of all poetic exaggeration, it still remains unrivalled in its powers of destruction: from the sober narrative of Rumphius, we learn that no other vegetable can live within a nearer distance of it than a stone's throw; that birds accidentally lighting on its branches are immediately killed by the poisonous atmosphere which surrounds it, and that in order to procure this juice with safety, it is necessary to cover the whole body with thick cotton cloth: if a person approaches it bare-headed, it causes the hair to fall off, and a drop of the fresh juice applied on the skin, if it should fail to produce immediate death, will cause an ulcer very difficult to be healed.

All that we know of the indigenious vegetables of Australasia is confined to the immediate neighbourhood of the British settlement at Port Jackson. The forests here are for the most part composed of lofty trees, with little or no interruption of underwood, so that they are readily penetrable in any direction, the principal shelter afforded to the few wild animals being in the long matted grass several feet in length, which overspreads the open country. In no discovered region has nature been less lavish of her vegetable treasures than in this part of the great southern continent, the only fruit-bearing plant is a climbing shrub, whose Linnæan name is billardiera scandens, the seeds of which are inveloped in a yellow cylindrical pulp tasting like a roasted apple. The loftiest of the trees, and which sometimes rises to the height of one hundred feet, is the eucalyptus robusta; it yields the brown gum, and its compact hard red wood has been imported into England by the name of New Holland mahogany. The red gum is procured from the ceratopetalum gummiferum, almost the only one of the native woods, that will float in water. A considerable proportion of the vegetables belong to the natural class of the papilionaceous, yet few even of these are referable to any of the old genera, two elegant species, the platylobium formosum and pultnæa stipularis, have been introduced into our hot-houses. The other indigenous plants are but little remarkable for their beauty or use, and the notice that they obtain in our gardens is chiefly owing to their being foreigners, two of them however deserve an honourable distinction, the embothryum formosissimum, a shrub whose large full crimson blossoms resemble the pæony, and the styphelia tubiflora, remarkable for its fringed scarlet flowers, nearly analagous in shape to the common buck bean.

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As we advance further in the Great Pacific ocean towards America, and examine the botany of those numerous clusters of islands discovered for the most part by the illustrious Cook and his associates, which extend in breadth from the Ladrones to Easter Island, and in length from the Sandwich islands under the northern tropic, to New Zealand, twenty degrees beyond the southern one, we shall find many features of general resemblance, modified however in such a manner as may naturally be expected by the different proportions which each receives of warmth and moisture, the two great supports of vegetation. The four following esculent plants, are found either wild or cultivated, in all the islands of this ocean, that have yet been visited, namely, the sweet potato, arranged in the Linnæan system as a species of convolvulus; the yam, whose tuberous root in the gardens of Otaheite, sometimes attains the weight of thirty pounds; and two species of arum, the macrorhizon and esculentum, plants of considerable natural acrimony, but which, by culture and roasting, become a mild farinaceous food. Of the plants peculiar to the tropical islands, the chief is the artocarpus incisa, or bread fruit: this valuable tree rises to the height of more than forty feet, with a trunk about the thickness of a man's body; its fruit, which is nearly as large as a young child's head, being gathered while yet unripe, and roasted in the ashes, is a most wholesome nourishment, and in taste resembles new wheaten bread: for eight successive months every year, does this tree continue to furnish fruit in such abundance, that three of them are amply sufficient for the support of one man, nor is this the whole of its value, the inner bark is manufactured into cloth, the wood is excellent for the construction of huts and canoes, the leaves serve instead of napkins, and of its milky glutinous juice a tenacious cement and birdlime is prepared. Of almost equal importance with the breadfruit, and even more generally diffused through the islands, are the plantain and cocoa nut trees. The principal of the sweet juicy fruits are the spondias and eugenia already noticed as natives of India, the citrus decumanum, or shaddok of the West Indies, and the pandanus odoratissimus. The sweet orange is found sparingly in the New Hebudes, and the fan palm is met with on the mountains of the Friendly Isles. The inocarpus, whose fruit resembles the chestnut, the sugar cane, the paper mulberry, together with several species of mimosa and figs, are inhabitants of all the larger and rocky isles; and the piper methysticum, from which is prepared the highly intoxicating ava or kava, is unhappily but too frequent. Three plants are esteemed sacred, viz. the crateva or purataruru, the terminalia glabra or tara-iri, and the dracena terminalis, on which account they are chiefly employed in shading the morais.

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AMERICA.

EXTENT.—ORIGIN AND PROGRESS OF THE DISCOVERIES AND SETTLEMENTS.—POPULATION OF THIS CONTINENT.

MANY modern geographers have passed from the description of Asia to that of Africa; while others, after having described these two continents and America, have concluded with Europe. In the arrangement of this work the political importance of the several divisions has been uniformly admitted, as a consideration of great and decisive influence, it being proper that those regions which are most eminent in the course of human affairs should have a preference in rank and delineation. In this point of view no quarter of the world is more insignificant than Africa: and that a considerable part of this last continent was known to the ancients, while on the north were the celebrated nations of the Egyptians and Carthaginians, is an argument merely historical, and which cannot be allowed to preponderate in a system of modern geography. In all future ages America must continue to be regarded as far more important than Africa, in every respect, political or natural: and when to this consideration it is added that though a part of Africa was well known to the ancients yet that continent is, upon the whole, far less known than any other, there is an additional most cogent geographical argument for postponing its description to the last, as has usually been done with regard to countries imperfectly discovered.

These reflections being premised, the next description shall be that of America.

The division of this wide continent into two parts, called North and South America, has not only been in long and general acceptation, but is strongly marked by the hand of nature, in an isthmus more narrow than that which separates Asia from Africa; and by a great diversity in the languages and manners of the original inhabitants. The general consideration of this extensive continent will therefore receive far

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more clearness and precision when divided into two parts, each forming a separate introduction to the regions about to be described.

According to the arrangement observed in this work, only two topics may be regarded as inseparable from a general view of all America, namely, the extent and population of the whole continent, and the progressive geography, or rather the epochs of the various discoveries.

The southern limit of the American continent is clearly estimated from the strait of Magalhaens, or, according to the French depravation of a Portuguese name, Magellan. But the northern extent is not ascertained with equal precision. If Baffin's bay really exist, the northern limit may extend to eighty degrees, or perhaps to the pole. But amidst the remaining uncertainty, it will be sufficient to estimate the length of America from the seventy-second degree of north latitude to the strait of Magalhaens, or the fifty-fourth degree of south latitude; a space of 126 degrees, or 7560 geographical miles. In South America the greatest breadth is from cape Blanco in the west to that of St. Roque in the east; which, according to the best maps, is forty-eight degrees, or 2880 geographical miles. But in the north the breadth may be computed from the promontory of Alaska to the most eastern point of Labrador, or even of Greenland, which would add more than a third part to the estimate. In British miles the length of America may be estimated at 8800, and supposing the breadth of North America 3840 geographical miles, it will, in British miles, be about 4400.

The first discovery of America is generally ascribed to Christoval Colon, or as he is commonly called, from the first Latin writings on the subject, Christopher Columbus. But as it is now universally admitted that Greenland forms a part of America, the discovery must of course be traced to the first visitation of Greenland by the Norwegians, in the year 982; which was followed in the year 1003 by the discovery of Vinland, which seems to have been a part of Labrador, or of Newfoundland. The colony in Vinland was soon destroyed by intestine divisions; but that in Greenland continued to flourish till maritime intercourse was impeded by the encroaching shoals of arctic ice. Though the first European colony in America were thus lost, the Danes asserted their right by settlements on the western coast, called New Greenland, to distinguish it from the original colony on the eastern shores, or what is called Old Greenland*.

Greenland continued to be well known; and as many English vessels sailed to Iceland in the fourteenth and fifteenth centuries, it is

* In 1773 there was published at Boston in New England, a curious pamphlet by Mr. Mather, entitled "America known to the Ancients." The author mentions the Welch tale of Madoc 1170, and the voyage of the Zeni in the fourteenth century. To the noted prophecy of Seneca he adds a passage of Mela relative to some Indians driven on the coast of Germany, who were probably Laplanders. The Atlantis of Plato forms another equally cogent argument; and the remainder of the pamphlet is occupied with extraneous matter.

Mr. Mather might have added the Spanish fable, that A. D. 734, after Spain had been conquered by the Moors, the archbishop of Porto, six bishops, and a number of christians, fled to the isle of *Antillia*, also called *Septi Ritadi*. See Mr. Murr's Dissertation on the globe of Behaim.

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probable that this part of America was not wholly unvisited by them. If the voyage of Nicola Zeno, 1380, be not imaginary, he would also appear to have visited Vinland, but can have added nothing to the Norwegian discoveries.

A work not long since published at Venice, pretends to shew that the West Indies were known before the first voyage of Colon*. This position the author attempts to prove from some ancient maps preserved in the library of St. Mark, which appear from repeated inscriptions to have been drawn by Andrea Biancho of Venice, in the year 1436. In these maps many Islands are inserted to the west of Europe and Africa, as the Azores (which seem properly to belong to Europe, the nearest continent,) the Madeira islands, the Canaries, &c.; while at a greater distance, but at no great interval, is placed *Ysola de Antillia*, of considerable extent, but by a comparative scale, not above 150 miles in length by fifty in breadth. Further to the north-west is another fabulous island called Delaman Satanaxio, or Satan's-own-hand, an appellation which rivals any since conferred by navigators. This island of Antillia by its coincidence with the French name Antilles, given to part of the West Indies, has completely embarrassed and misled Formaleoni, who confesses that he cannot conceive whence the term was derived.

A short explanation may serve entirely to obliterate this wonderful discovery. As human follies are generally similar, a recollection of what happened forty years ago, when many philosophers asserted the indispensable existence of a great southern continent, in order to balance Europe and Asia, will serve to illustrate the present subject. The mathematicians and philosophers of the middle ages, in like manner, imagined that some lands were necessary on the opposite part of the globe, to balance the known continents. As these lands were to them wholly imaginary, they were laid down at random; and the very map of Biancho, which gives a kind of oblong square form, of a regularity unknown to nature, is a proof that the whole is ideal. These imaginary lands were in the middle ages, called *Ante-Insulæ*, or *Antinsulæ*, whence the French Antilles† simply implying *islands opposite to the known continents*; the extent of which latter was, at that period, considered as about a third part of their real size. Hence the reader will immediately perceive that Formaleoni, and many other writers, have, in their inscience of the literature and ideas of the middle ages, asserted as proofs of knowledge what are, on the contrary, proofs of complete ignorance.

The globe of Martin Behaim, 1492, is an interesting monument, as it shews the precise extent of geographical knowledge prior to the first voyage of Colon. Mr. Murr has observed that this great navigator

* Saggio sulla nautica antica dei Veneziani; di Vincenzio Formaleoni. Ven. 1783, 8vo.

† The French alone have retained the old imaginary name, and applied it to the Caribbee Islands: but the Spaniards appear to have led the way in this absurd appellation.

The name of *Antinsulæ* was perhaps originally substituted for that of *Antipodes*, which had been branded by a special papal anathema. From the life of Colon, by his son, it would seem that *Antilla* was originally a Portuguese idea.

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could not possibly have derived any intelligence from that globe. From the print which he has published it appears that, beyond the Azores and islands of Cape Verd, Behaim inserted the fabulous Spanish isle of *Antillia;* and beyond this, near the equator, the island of *St. Brandan*, also called *Ima*, a sort of ideal paradise, described in a work of the middle ages, styled the voyage of St. Brandan, and which is palpably founded upon the belief of the pagan Irish, that, after death, their souls returned to their fathers in a delightful island to the west. After passing the island of St. Brandan occurs the *Zipangu*, or Japan, of Marco Polo, at nearly an equal distance from St. Brandan as the latter bears from the isles of Cape Verd; for Ptolemy had extended his oriental longitudes to such a surprising degree, that there was little vacancy left on the globe, after laying down at random the discoveries of Marco Polo. Hence when Colon arrived at the West Indies he conceived that he was in the neighbourhood of Japan; and the name of India was imposed in a new and improper sense.

From this brief investigation it will sufficiently appear that there is no room to deprive Colon of one atom of his glory, as Behaim, who was the most complete geographer of his time, evinces that there was no prior discovery, upon the route followed by that great navigator. The discovery of Vinland could scarcely have been known to him: and that of Greenland was so remote, that there was no room for a suggestion that this region formed a part of a prodigious continent*. It will now be proper to state the chief epochs of American discovery.

A. D. 982. Greenland discovered by the Norwegians, who planted a colony.

1003. Vinland, that is a part of Labrador or Newfoundland, visited by the Norwegians, and a small colony left, which, however, soon perished.

After this there seems a long pause, for no further discovery in America has hitherto been traced, by the utmost exertion of learned research, till the time of Colon. But the Portuguese discoveries in the fifteenth century had gradually enlarged knowledge and encouraged enterprise. The Canary Islands appear to have been faintly known to the Spaniards about the middle of the fourteenth century: and the Normans of France, in the usual enterprising spirit of their progenitors, had made piratical excursions as far as these isles, which were at length completely conquered by a Norman gentlemen, Jean de Bethencourt, in 1402, who, by the consent of the Spanish court, assumed the title of king of the Canaries.† Madeira is said to have been discovered by the

* In the curious life of Colon by his son Fernando, cap. vi. vii. the reasons are explained which led Colon to suspect the existence of land to the west; that the world was spherical, and might be circumnavigated; the discovery of the Azores, &c. between which and the extreme longitude of Ptolemy there could only be the *third part* of a sphere; the great size of India as described by the ancients, which induced him to think of reaching that country from the west, as Colon imagined that the Hesperides of the ancients must be islands of the East Indies, &c. &c. The discoveries of Marco Polo, and the islands of Antilla and St. Brandan, had also great weight.

† See the very curious history of this conquest, written by his domestic chaplains, and published at Paris 1630, 8vo.

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English in 1344;* but the islands of Cape de Verd seem not to have been known till 1446, nor the Azores till 1449†. These last isles, from their position, properly belong to Europe; and the king of Portugal, in 1446, gave them to his sister the dutchess of Burgundy. War and famine then prevailing in Flanders, many people passed from that country to the Azores, among whom was Job de Huerter, lord of Moirkirchen in Flanders, who afterwards resided in Fayal, and appears to have had a grant of the Azores from the dutchess of Burgundy. The celebrated geographer Behaim married the daughter of Hueter: by his account, as inscribed on his globe, the Azores were discovered in 1431, and were so named from the numerous goshawks there found. The discovery of these isles, so far to the west, proved an important motive to the further researches of Colon; who was also instigated by the numerous Portuguese discoveries in Africa, where the Cape of Good Hope had been seen by Diaz in 1486.

1492. Colon sails from Palos, in Spain, in quest of the new world, on Friday the 3d day of August. On the 1st of October he was, by his reckoning, 770 leagues west of the Canaries. His men began to mutiny and he was forced to promise to return in three days, if land did not appear. Fortunate presages soon arose, such as land birds, a cane newly cut, a carved piece of wood, and the branch of a tree with fresh red berries‡. These and other symptoms induced Colon to order the ships to lye to in the evening of the 11th of October, in the certainty of seeing land on the approach of day-light. The night was passed in gazing expectation; and a light having been observed in motion, the cry of *land! land!* resounded from the headmost ship||. With the dawn of Friday October 12th a beautiful isle appeared, two leagues to north. *Te Deum* was sung with shouts of exultation, and every mark of gratitude and veneration to the admiral. Colon was the first who landed, to the great astonishment of the natives, who regarded their visitors as children of the sun, the astonishment on both sides being indescribable.

The first discovery of Colon he called San Salvador, but it is now better known by the native name of Guanahani, (the Cat Island of the English mariners,) being one of the group called the Bahama isles. Colon soon afterwards discovered Cuba and St. Domingo. After visiting the Azores on his return, he arrived at Palos on the 15th of March, 1493.

1493. The *second* voyage of Colon, 25th September. Steering more southerly, he discovered several of the Caribbee islands founded

* Bergeron, p. 36. Robertson, America, i. 57. says in 1419 by the Portuguese, by whom it was colonized in 1420.

† But Murr says that the Azores were explored successively 1432—1449. The chronology of these discoveries would require a dissertation, and an inspection of the Portuguese archives.

‡ Robertson's America, i. 114.

|| This was the Pinta, commanded by Martin Alonso Pinzon. Rodrigo of Triana was the name of the mariner who was so fortunate as to announce this important intelligence to his countrymen. It would be well to perpetuate the name of *Triana* in some town or county of the United States. *B.*

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a town in St. Domingo, being the first European settlement in the new world, and did not return till 1496.

1498. *Third* voyage of Colon towards the south-west, where he expected to find the Spice Islands of India*. On the first of August he discovered an island, which he called Trinidad, not far from the mouth of the river Orinoco. It seems surprising that he did not bend yet further to the south, where he must have fallen in with the main land of America. Yet he judged from the estuary of the Orinoco that this great river must flow through a country of immense extent; and he landed in several places on the coast of the continent now called Paria. He then returned to Hispaniola or St. Domingo: and in October, 1500, was sent back to Spain in chains!

1499. Alonso Ojeda, an officer who had accompanied Colon in his second voyage, sails to America with four ships, but discovered little more than Colon had done. John Cosa acted as pilot. One of the adventurers was Amerigo Vespucci, a Florentine man of science, eminently skilled in navigation†. On his return, Amerigo published the first description that had yet appeared of any part of the new continent: and mankind have assigned to him an honour far above the renown of the greatest conquerors, that of indelibly impressing his name upon this vast portion of the earth. It is wrong to accuse him of vanity, for it was not he who gave the name: it was, on the contrary, the full gratitude of others, which alone could have imposed the appellation, from regard to the first man of letters who had disclosed this discovery to the general eye, as it seems before to have been concealed by jealousy and intrigue; and the name is, at any rate, better than that of New Holland or New South Wales, assigned in our own most enlightened times: nor do we esteem it any want of gratitude to Cook that no land has yet received its denomination from his name‡.

1500. On his voyage to the East Indies, Pedro Alvarez Cabral, the Portuguese Admiral, discovers Brazil. This undesigned discovery evinces that, independently of the sagacity of Colon, America could no longer have remained in obscurity||.

* Galvanus has fallen into a mistake in placing the third voyage of Colon in 1497. B.

† Vespucci had undoubtedly made a voyage to America in 1497, while Colon was in Spain. In this voyage he discovered the continent of South America, as is sufficiently evident from the concise but interesting account of his voyage, written by himself. B.

‡ In the original work, Mr. Pinkerton says, "as the titles of the three other quarters of the world spread, by mere accident from small districts, so when the name of America was imposed there was not the most distant idea of the prodigious extent of the territory; and it was only understood that this appellation was given to a large island." This is not correct. The name of America was not conferred upon the new world until after the discovery of the continent by Vespucci, and it is very evident from his own account of his voyages, that he conceived the newly discovered countries to be of great extent. He had proposed to give to them the name of *Hemisphærium*. Vespucci died in February 1512. B.

|| In September, 1499, Vasco de Gama returned to Lisbon, after having visited India by the Cape of Good Hope: on which voyage he sailed June 30th, 1497.

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1502. *Fourth* voyage of Colon, in which he discovers a great part of the continent, and particularly the harbour of Porto-bello*.

1513. Vasco Nugnez de Balboa descried, from the mountains of the isthmus, the grand Pacific Ocean; and he afterwards waded into the waves, and took possession of it in the name of the Spanish monarch. This discovery seems to have terminated the vain expectation that America formed a part of Asia.

It seems unnecessary to trace with minuteness the other epochs of discovery in this quarter. In 1515 the continent was explored as far as Rio de Plata; but even in 1518 little was known concerning its western parts: and twenty-six years had elapsed since the first voyage of Colon, before the existence was rumoured of the empires, or kingdoms, of Mexico and Peru. Hispaniola and Cuba still continued to be the chief seats of the Spanish power. In 1519 Cortez, with eleven small vessels, containing 617 men, proceeds to the conquest of Mexico, which was accomplished in 1521. Ferdinand de Magalhaens, at the same time, having explored the Pacific Ocean, the discovery of the western coast of America became a necessary consequence. After many reports concerning the riches of Peru, that country was at length visited in 1526 by Pizarro, in a vessel from Panama. In 1530 the conquest of Peru was begun by Pizarro, at the head of thirty-six cavalry and 144 infantry: and in ten years that empire was divided among his followers. In 1543 the first Spanish viceroy appeared in Peru.

In North America the epochs of discovery were more slow.

1497. Giovanni Gaboto, a Venetian, called by the English, John Cabot, who had received a commission from Henry VII in 1495, in the view of tracing a nearer passage to India, discovered Newfoundland, so called by his sailors; and inspected the American shore as far as Virginia: but this land forming merely an obstacle to his wishes he returned to England. The Sebastian Cabot, who visited Brazil in 1516, was probably the son, and not the brother of this adventurer.

1500. Gaspar Corte de Real, or Corterial, a Portuguese captain, in search of a northwest passage, discovered Labrador, which he appears to have so called from the seeming industry of the natives.

1513. Florida discovered by John Ponce, a Spanish captain.

1524. The powerful kingdom of France had hitherto taken no share in these discoveries: but in this year Francis I, sent John Verazzani, a Florentine, who examined a considerable part of the coast of North America. It is remarkable that he found ornaments made of

* This illustrious man was afterwards created duke of Veragua; but died of the gout on the 20th of May, 1506, at the age of 59, and was buried at Seville with this most honourable inscription:

A Castilla y a Leon
Nuevo Mundo dio Colon,

To Castile and to Leon
Colon has bequeathed a new world.

Some writers assert that the body of Columbus was carried to the West Indies, and buried in the cathedral of St. Domingo, in Hispaniola.

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copper among the Indians in the higher latitudes of the continent. These, it is probable, may have been presented to the natives by some preceding visitors of the country.* It is certain, however, that copper instruments of different kinds were in use, not only among the Mexicans, but also among the Floridians, before the discovery of the continent by the Europeans.

1534. Francis I, sending a fleet from St. Maloes, to establish a settlement in North America, James Cartier the commander, on the day of St. Lawrence, discovered the great gulf and river to which he gave the name of that saint. In the following year he sailed about 300 leagues up this noble stream to a great cataract, built a fort, and called the country New France.

1539. The Spanish captain Soto proceeded from Cuba to complete the conquest of Florida. He travelled northward to about latitude 35°, but died in 1542, and was buried in the river Missisippi, near the mouth of the Red river.

1540. Jean de la Roque, lord of Roberual, a gentleman of Picardy was appointed lieutenant general of the new lands of Canada, Hochelaga, and Saguenay, who soon returned without success. Roberua again went in 1543. In 1555 the French also attempted a settlement in Brazil.†

1549. Sebastian Cabot was appointed by Edward VI grand pilot of England, with a considerable pension, for his services in the discovery of America. This Sebastian was probably the son of John Cabot: and respectable descendants of the family still exist in the state of Massachusetts‡

1562. Ribeaut arrived in Florida from France, and returned in 1564: but the colony was destroyed by the Spaniards. Another French commander, Gourgues, revenged the insult, but returned to France in 1568. The industrious and venerable Hakluyt has published the accounts of those French voyages; and though merely a private clergyman, perhaps did more than any potentate to promote a simliar spirit in England. The other French voyages during this century were of little moment. In 1591 they discovered some isles near Canada; and in 1598 a lieutenant general was appointed for Canada, Labrador, &c. without effect.‖ In 1605 Mons visited Canada: Escarbot went thither in 1606. The latter has drawn up a curious history of the French attempts. The Irroquois or Irrokis, many of the lakes, &c. &c. were discovered by the French between 1609 and 1620. In 1627 the jesuits repaired to Canada, which afterwards became a firm and flourishing colony.

It will now be proper to consider the progress of the chief settlements.

1757. Frobisher, in search of a north-west passage, discovered the straits which retain his name.

* Bergeron says that in 1504 the Normans and Britons had already visited the great fishing banks near Cape Breton.
† Bergeron, p. 106. ‡ Bergeron, 122. ‖ Morse.

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1578. Sir Humphrey Gilbert obtained a patent for settling lands in America. In 1583 he discovered and took possession of the harbour of St. John, and the country to the south, but was lost on his return.*

The voyage of Drake round the world served to kindle the enthusiasm of the English; and Ralegh obtained a patent similar to that of Gilbert.

1584. Two small vessels dispatched by Ralegh unfortunately bent their course to that country now called North Carolina, instead of reaching the noble bays of Chesapeak or Delaware. They touched at an island called Wokocon, probably Ocakoki, situated on the inlet into Pamlico sound; and afterwards at Roanoke near the mouth of Albemarle Sound.† These vessels returned to England, with two of the natives; and Elizabeth assigned to this region the name of Virginia, an appellation which became laxly applied to the British settlements in North America, till it was confined to a different country from the original Virginia.

1585. Ralegh sent a small colony, under the command of Sir Richard Grenville, who settled in the isle of Roanoke, a most incommodious and useless station, whence they returned in 1586. The account of this settlement, illustrated by curious prints, was published under the auspices of Ralegh;‡ who made other unsuccessful attempts to colonize the country, and afterwards resigned his patent to some merchants, who were contented with a petty traffic. At the death of Elizabeth, 1603, there was not, so far as is now known, one Englishman settled in America: and the Spaniards and Portuguese alone had formed any establishment on that vast continent.

The venerable Hakluyt, anxious that his countrymen should partake of the benefit of colonies, procured an association of men of rank and talents for this purpose: and a patent was granted by James I, April the 10th, 1606, that monarch being wholly unconscious that he was about to establish an independent and mighty empire. The bay of Chesapeak was discovered in 1607; and the first lasting settlement was founded at James town, in modern Virginia. Captain John Smith, who afterwards published an interesting account of his voyages, displayed remarkable spirit and enterprize: yet the colony was about to return to England, when Lord Delawar arrived in 1610, and though he remained only a short time yet his prudent conduct firmly established the settlement. The subsequent events would be tedious to detail, but the following table, extracted from Mr. Morse's work, will supply the chief epochs.

* Hakluyt.

† Robertson's America, iv. 39. But compare the map by John White in the curious account of Grenville's expedition, published in English at Franckfort 1590, folio.

‡ Plate 2d represents the spot of the settlement on the isle Roanoke, with parts of the adjacent continent called Secotan and Weapemeoc, which now seem to belong to the *Dismal Swamp*; so injudicious was this first settlement. But the book is deeply interesting, as the earliest monument of the English power in America: and it seems to have given rise to the noted Latin Collection of Voyages published by De Bry.

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Names of Places.	When settled.	By whom.
Quebec,	1608.	By the French.
Virginia,	June 10, 1610.	By Lord Delawar.
Newfoundland,	June, 1610.	By Governor John Guy.
New York, New Jersey,	about 1614.	By the Dutch.
Plymouth,	1620.	By part of Mr. Robinson's congregation.
New Hampshire,	1623.	By a small English colony near the mouth of Piscataqua river.
Delaware, Pennsylvania,	1627.	By the Swedes and Finlanders.
Massachusetts Bay,	1628.	By Captain John Endicot and company.
Maryland,	1633.	By Lord Baltimore, with a colony of Roman Catholics.
Connecticut,	1635.	By Mr. Fenwick, at Saybrook near the mouth of Connecticut river.
Rhode Island,	1635.	By Mr. Roger Williams, and his persecuted brethren.
New Jersey,	1664.	Granted to the Duke of York by Charles II, and made a distinct government, and settled sometime before this by the English.
South Carolina,	1669.	By Governor Sayle.
Pennsylvania,	1682.	By William Penn, with a colony of Quakers.
North Carolina,	about 1728.	Erected into a separate government; settled before by the English.
Georgia,	1732.	By General Oglethorp.
Kentucky,	1773.	By Col. Daniel Boon.
Vermont,	about 1764.	By emigrants from Connecticut, and other parts of New England.
Territory north-west of Ohio river, Tennessee on the south of Kentucky.	1787.	By the Ohio and other companies.

Having thus mentioned the progress of the English settlements as intimately connected with the discovery of the country, it may be necessary briefly to state the epochs of a few other remarkable discoveries, rather unconnected with these settlements. In 1585 John Davis an experienced navigator, visited the western coast of Greenland, and explored the narrow sea, absurdly enough called Davis's strait, while it is as wide as the Baltic. On another voyage he proceeded as far north as the island of Disco, and the opposite shores of Greenland, which he named London coast. He also discovered Cumberland strait; and upon the whole, the three voyages of this navigator are of great consequence. His furthest point of discovery appears to have been Sanderson's Hope, latitude 72°, whence turning to the west he was impeded by fields of ice*.

In 1607, Hudson made his first voyage; and is said to have proceeded along the eastern coast of Greenland as far as latitude 82° but probably not above latitude 80°, or the furthest extremities of Spitz-

* See Forster's Voyages and Discoveries in the north, p. 293, &c.

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bergen. In a voyage which he made to America in the year 1609, he discovered the noble river which still bears his name, in the state of New York. On his voyage of 1610, he discovered the straits of Hudson, and that vast inland sea, approaching in size to the Baltic, which however is best known by the name of Hudson's Bay.

In 1616 some public spirited gentlemen sent Captain Robert Bylot, (or as Purchas calls him, Bylett) to attempt a north-west passage. William Baffin sailed with him as pilot. This voyage, it has been justly observed, is one of the most singular in the whole circle of geography. Far exceeding the utmost stretch of Davis, they discovered Horn sound, Cape Dudley Diggs, Hakluyt Island, Sir Thomas Smith's Sound, Cary's Islands, Alderman Jones's Sound, and Sir James Lancaster's Sound; all of them totally unknown to any preceding or succeeding navigator. Baffin thus pretended that he had, in an inland and narrow sea, (which to increase the absurdity, is laid down in our maps with all its shores, a matter never before attempted from a first and imperfect visit,) proceeded to the latitude of more than 78°, while Captain Cook, one of the most skilful of modern navigators, could not exceed 72° in the open arctic ocean, and Davis himself was stopped at 72°, in this very sea, supposed to be inland, while it is probably only part of that ocean. It is further remarkable that this voyage is very imperfectly known from Baffin's relation, published by Purchas; and all the charts and maps of this pretended bay, have been merely laid down from the observations contained in his journal; for if Baffin made any chart it was not published by Purchas. It is perhaps equally remarkable, that no doubt seems yet to have been entertained concerning the existence of Baffin's Bay: while it is not improbable that he is merely a bold impostor, who wished to recommend himself to his employers, by the pretence of having imposed their names on grand and important features of nature, and by his numerous *Sounds*, to have laid a scheme for drawing more money from his protectors, for the investigation of a north-west passage. Yet it would seem that strong doubts prevailed even at the time, for these supposed discoveries were entirely neglected.

Supposing that Baffin's Bay were dismissed from our maps, it is probable that Greenland is a continuation of the continent, and spreads to the west about latitude 75°: or it may be detached land, like New Holland, extending towards the pole. The general line of the arctic sea in this quarter, as seen by Mr. Hearne 1772, and by Mr. Mackenzie 1789, is about latitude 70°; and it is not improbable that at a little higher latitude it coalesces with what is called Baffin's Bay; in which case Greenland is a detached land, and the country on the north of Hudson's Bay consists of several large islands in the arctic ocean.

The discoveries of the Russians, and of Cook, and Vancouver, seem to have completed those of the western coasts of America; and the journies of Hearne and Mackenzie have imparted some idea of its confines on the arctic ocean.

Population. The general population of this immense continent has been a subject of considerable discussion, some having supposed that it amounted to one hundred and fifty millions, while others infer that there are only fifteen or twenty millions. The ridiculous

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exaggerations of some of the old Spanish authors, who rival Mendez de Pinto, have swelled villages to cities, and thousands to millions. The savages in North America are thinly scattered, as in the extremities of Asia, where a thousand families constitute a nation. A writer, who has examined the subject with some attention, observes that the population of British America does not exceed 200,000; and supposing the savages an equal number, and the inhabitants of the Spanish part of North America 100,000, these together will amount to half a million. Supposing the United States to have five millions; there will be five millions and a half. The empire of Mexico, (which he ought to have included in North America,) from the enumerations made in some provinces, probably contains four millions of the native race, and about three millions of foreign extract. Hence there are in Mexico seven millions. Peru and Chili can scarcely contain more, and he estimates the other Spanish possessions in South America at two millions, with four millions for Brazil and Paraguay. The other parts are mostly wide deserts; so that he concludes that the inhabitants of South America do not exceed twenty millions; nor those of North America five millions and a half.

As Mexico belongs to NORTH America, seven millions, added to five and a half, will yield TWELVE MILLIONS AND A HALF for that division; while SOUTH America, by the same calculation, will contain THIRTEEN MILLIONS. In the opinion of the late learned Dr. Stiles the aboriginal population "never exceeded two or three million souls, in all North and South America since the days of Columbus."* Some even infer that fifteen millions is too large an estimate for the whole population of the new continent. But there are good reasons to believe that the population considerably exceeds this calculation; and the monuments of the Mexicans and Peruvians, the actual state of some parts of Florida, when that country was visited by Soto, leave little room to doubt that the Indian population of America was much more considerable than many writers have imagined.†

* The United States elevated to glory and honour. A sermon, &c. p. 20. This is a singular but very interesting work. B.

† Mr. Pinkerton (in the original work) thinks it probable that the population of Africa has also been exaggerated by geographers, and "does not exceed 30,000,000." B.

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NORTH AMERICA.

BOUNDARIES.—ORIGINAL POPULATION.—LANGUAGES.—CLIMATE. INLAND SEAS.—LAKES.—RIVERS.—MOUNTAINS.

BOUNDARIES. THIS division of the new continent is bounded on the east by the Atlantic; and on the west by the Great Pacific ocean. On the south it is understood to extend to the vicinity of Panama, the province of Veragua being universally considered as part of North America*. The northern limits have not yet been clearly ascertained; but as it is improbable that a slip of land, on the north-west of Hudson's Bay, should extend far to the north, the limit may probably be discovered about 74° or 75°. In the meantime 72° may be safely assumed; whence to the southern boundary, about north latitude 7° 30', as marked in the map of Lacruz, there will be 64½°, or 3870 geographical miles; more than 4500 British. The breadth from the promontory of Alaska to the extreme point of Labrador, or the Cape of St. Charles, will, by somewhat of a solecism, exceed the length of the general continent. If it should be discovered that Greenland is united to arctic lands of America, as Kamtchatka is, for instance, to Asia, both the length and breadth will be greatly increased.

ORIGINAL POPULATION. In pursuing the arrangement of topics, here adopted in the general description of a continent, the first which occurs is the ancient population; but our knowledge of the American languages is still so imperfect that the subject is involved in great doubts. There seems, however, to be good reason for believing, that the greater number, if not the whole, of the nations of America are of Asiatic origin. Physical affinities would almost impel a candid

* In the large map of South America, published at Madrid in 1775, by Don Juan de la Cruz, Cano, y Olmedilla, Geographer to his Catholic Majesty, the province of Panama extends to the bay del Almirante, in the north, and includes the bay of Panama, in the south, Sant Yago, in Veragua, being the first town in North America. According to the maps of Lopez there is a chain of mountains running north and south, called Sierras de Canatagua, and ending in the point Higuera: which dividing the provinces of Panama and Veragua, forms a natural boundary between North and South America.

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inquirer to adopt this theory, which is rendered more probable by an attention to the religions and other institutions, and to the languages of the Americans. Ingenious men, who have visited China and other more northern parts of Asia, have been forcibly struck, upon their arrival in America, at the great similarity of the Indian inhabitants of this continent, to the Chinese, Tatars, and other Asiatics. Thus Smibert the painter remarked the great resemblance between the Indians of Naraganset in New-England and the Siberian Tatars. It must not, however, be concealed, that Pallas, Lesseps, Tooke, and other observers, have pronounced that the Techuks and Koriacks proceeded from America.*

LANGUAGE. It is greatly to be regretted that, neither in North nor South America, have the languages been compared, analysed and classed, with as much attention as the subject merits. But this interesting point has not been neglected. Specimens of many of the languages both of North and of South America, have been collected into one view, and published. These specimens sufficiently establish the fact, that the radical languages of America are not so numerous, as has been asserted by some learned and ingenious men; and that there is no good reason to believe, that the nations of North and of South America were derived from two different originals. They also serve to shew, the great affinity of many of the American languages to those of the old world.† Founding the inquiry on the affinities of their languages, it may with great certainty, be inferred that many of the nations of North and South America are the descendants of existing nations of Asia, particularly of the Semoyads, Tatars, Japanese, Monguls, Chinese, and even some of the nations of Mount Caucasus.‡ It is highly probable that America received a portion of its population from the countries of Asia south of China. Very unequivocal vestiges of the languages of the Malays and of the people of Hindostan have been discovered in North America, notwithstanding the assertions of certain writers to the contrary.‖

* None of the native nations of America display the smallest trace of the oblique eyes, and other remarkable features by which the inhabitants of eastern Asia are distinguished." Pinkerton. All the eastern Asiatics are not furnished with oblique eyes; and it is difficult to say in what the physical difference between many Asiatics and Americans does consist. B.

† See New Views of the origin of the tribes and nations of America. The second edition. Philadelphia: 1798. A second part of this work is nearly ready for the press. B.

‡ It is remarkable that so learned a writer as Mr. Pinkerton should assert (in the original work,) that the American languages "certainly bear no resemblance" to those of Europe, or Asia; and that "the curious question concerning the population of America can only be duly examined after the various dialects have been compared to those of Africa." It has already been observed that between the American and Asiatic dialects there is a very striking affinity; infinitely greater than is found to exist between the former of these dialects and those of Africa, many of which have been carefully examined by the writer of this note. B.

‖ Mr, Pinkerton (In the original work) says "the language of the Malays, who extended themselves so far to the east of Asia, has no connection with that of the Americans." This bold assertion is founded upon the imperfect tables of Dr. Forster. But some resemblances between the American languages and that of the Malays have been pointed out, and many more might be pointed out. See New Views, &c. p. 33, 34, &c. B.

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Progressive Geography. The progressive geography has already been treated under the general head of America. The northern and central parts of this division are still imperfectly known. The number of immense lakes, a singular feature of North America, began gradually to be disclosed by the French, in the 17th century; and the curious reader may trace the progress of their knowledge in the travels of Hennepin and Lahontan. Those of Carver, Hearne, and Makenzie, have added greatly to former discoveries; but of the western regions little is known, except the shores.

Religion. The ruling religion of North America is the christian, under various forms in the United States; and Roman Catholic in the Spanish dominions, and among the French of Canada. That of the native nations shall be briefly considered in the account of the chief tribes.

Climate. The climate of North America is extremely various, as may be conceived in a region extending from the vicinity of the equator to the arctic circle. It may be asserted, with entire safety, that the heat of summer and the cold of winter are more intense than in any parts of Europe in the same lat. But the climate of North America and that of northern Asia appear to be very similar, and the vegetable productions of the two continents are, in many instances, the same.* Near Hudson's Bay the mercury in Farenheit's thermometer, has risen in July to 85, and sunk in January to 45 below zero: but the mercury begins to congeale at 40.† The predominant winds are here from the west; and the severest cold is from the north-west. Almost every part of the known continent is remarkable for the unsteadiness of the weather, particularly the sudden transitions from heat to cold, and the reverse. This observation certainly applies to every part of the United States. Snow frequently falls in Pennsylvania, and even south of this, after the middle of April, when great numbers of the native and foreign vegetables are in bloom. Snow has fallen and ice has formed, after the beginning of May, although the thermometer in the immediately preceding days has been as high as 76. These remarkable alterations, which cannot be favourable to the health of the inhabitants, seem to proceed from the sudden change of the wind to the north-west. North and South Carolina, Georgia and Florida are subject to extreme heat, the mercury in the thermometer often rising to 106 degrees in the shade. The greatest heat of Pennsylvania and other middle parts of the United States is about 95 or 96, though the mercury has been known to rise higher than this. Every part of the country is subject to much thunder and lightning. Furious whirlwinds and hurricanes are principally confined to the southern parts of the union. A violent tuffoon happened near Charlestown in 1761, appearing like a column of smoke with a noise like thunder, ploughing the very beds of the rivers, and diffusing universal destruction throughout its progress.

* Japan, Kamtchatka, and China possess many of the native plants of North America, and not a few of the vegetables of this continent are found in Cochin China. See the Flora Cochin chinensis of Loureiro. B.

† Pennant, A. Z. ccxxx.

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Few opportunities have yet arisen for accurate accounts of the climate, in the western parts of North America. That of California seems to be in general moderate and pleasant, though somewhat incommoded by the heat of summer. In lat. 59° the land has a most barren and wintery appearance, even in June: the gloom is increased by frequent fogs, and the glaciers seem perpetual.*

Inland seas. Among the inland seas of North America may be mentioned the gulfs of Mexico, California, and St. Lawrence; with Hudson's Bay, or rather Hudson's Sea,† and what is called the straits of Davis, which is probably a sea of communication between the Atlantic and the arctic oceans. The existence of Baffin's Bay is doubtful, as already shewn; but there are several lakes of so great a size that they deserve to be distinguished by the name of seas, particularly Lakes Superior, Michigan, and Huron, which constitute one vast piece of water, of immense extent; and the great Slave Lake in the north is laid down as about 220 British miles in length. In Asia no hesitation has been shewn by geographers, in applying the name of Sea to the lake of Aral, which is about 200 miles in length; and the sea of Baikal about 350. But the latter is not above thirty-five miles in breadth, while the lake Superior is more than 100.

Gulf of Mexico. Of all these seas the gulf of Mexico is the most celebrated, as lying in a most favourable climate, and presenting at its entrance that grand archipelago of North American Islands called the West Indies. From this gulf a singular current sets towards the north-east, this current called the gulf stream passes to the banks of Newfoundland, and is supposed to proceed from the accumulation of waters by the trade wind. It is distinguished from other parts of the ocean by abounding more in what is called the gulf weed (different species of fucus;) is eight or ten degrees warmer never sparkles in the night: and when it arrives in cool latitudes produce a thick fog. The trade wind, or diurnal sea breeze, is from the east, and its collateral points, with little intermission, for nine months of the year. To the south of the gulf of Mexico is the Bay of Honduras, well known in the annals of English commerce. The Caribbean sea may perhaps more properly be considered as belonging to South America.

The opposite shore presents the gulf of California, which seems an estuary of two large rivers. The silence of the Spaniards concerning their American possessions affords but few materials for a proper illustration of their geography. The gulf of St. Lawrence is the well known estuary of a river of the same name, generally frozen from December to April. This noble gulf is closed by the Island of Newfoundland, and by numerous sand banks, particularly what is called the Great Bank. This celebrated fishing station is more than 400 miles in length, by about 140 in breadth; the water being from twenty-two to fifty fathoms with a great swell, and frequently a thick fog. The chief fishery begins on the tenth of May, and continues till the end of Sep-

* La Perouse, ii. 67.

† The bay of Biscay and that of Bengal may perhaps authorise the received appellation: but these bays should rather be called seas or gulfs, if there were any uniformity in geographic terms.

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tember, the greatest number of cod-fish, taken by a single fisherman, being twelve thousand, but the average is seven thousand: the largest fish was four feet three inches in length, and weighed forty-six pounds.* More than 500 English vessels commonly fish on the bank; and the number used sometimes to be equalled by that of the French, who had formerly a settlement in the neighbouring isle of Cape Breton. The United States also employ a considerable number of small vessels in this fishery.

There are also great fisheries on the banks which lye off the coasts of Nova Scotia, particularly on that called Saddle Island Bank, or rather from the French *Sable*, the Isle of Sand, which is in the shape of a bow about eight leagues in length, with a narrow pond of sea-water in the middle, filled every tide by a narrow inlet.

HUDSON SEA. Hudson Sea may be considered as extending from the entrance of Hudson strait, to its western extremity, that is from long. 65° west to long. 95°, or thirty degrees of longitude, which in lat. 60° will be 900 geographical miles or about 1050 British, exceeding the Baltic in length as well as breadth. The shores are generally rocky and precipitous, and the climate almost the perpetual abode of winter, the hot weather in June being brief though violent. This sea is far from abundant in fish, but the common whale is found: and the Beluga, or white whale, is taken in considerable numbers in June, when the rivers in the south have discharged their ice. Large sturgeons are also caught near Albany. Shell fish are extremely rare, common muscles alone being frequent. The large track of territory on the south of this sea is the property of the Hudson's Bay Company, whose chief profits are derived from furs. This sea has been repeatedly explored for a north-west passage, perhaps as little to be expected as a passage from the Baltic into the Arctic ocean, or the Euxine. Chesterfield inlet is a singular strait stretching far to the west but terminates in a magnificent lake of fresh water, communicating with this sea, by what may be called a broad river; the adjacent land being level, rich in pasture, and abounding with deer.† But it is probable that in the north-east Hudson Sea opens into the Arctic ocean, where the perpetual ice presents a complete barrier to commercial views.

DAVIS. The Gulf or Sea of Davis may be considered as part of the Sea of Hudson, and probably joins the Arctic ocean. What is called Baffin's Bay is laid down as extending from 46° west long. to 94°, which, supposing the degree only sixteen geographical miles, would yield a length of 768 geographical miles; and the breadth on the west-side is represented as little inferior. As this sea is perhaps wholly imaginary, it is unnecessary to enlarge on the subject: and it shall only be observed that the west coast of Greenland has not been explored beyond lat. 72°, or Sanderson's Hope, and an old Danish settlement called Opernevig. In the midst of Baffin's Bay many maps present a large tract called James Island, which perhaps is a promontory passing from Greenland.‡

* Pennant, A. Z. ccevii.

† Pennant, A. Z. ccxcv.

‡ It is rather a large isle in the north of Hudson Sea, laid down from erroneous observations.

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As in the general description of Asia not only the Caspian Sea, but those of Aral and Baikal have been commemorated, so the vast lakes, above-mentioned, may here be considered as detached inland seas.

Lakes. The lakes Superior, Michigan, and Huron, in this point of view, form one large inland sea, which might be called the sea of Canada, or that of Huron. This expansion of water, as already mentioned, is of great extent: for according to the French charts, that part of this sea which is called Lake Superior, is not less than 1500 miles in circumference.* The greater part of the coast seems to consist of rocks and uneven ground, like those of the sea of Baikal. The water is very pure and transparent; and the bottom generally composed of large rocks, which are probably calcareous, as are the rocks which form the pavement of Erie, and some of the other lakes. There are several islands, one of which called Minong is about sixty miles in length: the savages suppose that these islands are residences of the Great Spirit, or *Manitou*. More than thirty rivers fall into this lake, some of them of considerable size, but the geography is far from being perfect.† The banks of a river on the north-west abound with native copper. The chief fish are sturgeon and trout; the latter being caught at all seasons, and said to weigh from twelve to fifty pounds. But we are not able to refer the animal to its proper species. This part of the Sea of Canada opens into the lake Huron, by the straits of St. Mary, or rather St. Marie. About forty miles in length, and in some places only one or two miles in breadth; with a rapide towards the north-western extremity, which may however be descended by canoes, and the prospects are here delightful. The storms on this large expanse of water are as dangerous as those on the ocean, the waves breaking more quick, and running nearly as high. The circumference of that part called Lake Huron is said to be about 1000 miles; and on the northern side are some islands called Manatulan, implying the place of spirits. Another short strait leads into the third lake called Michigan, also navigable for ships of any burden. When the population of North America shall have diffused itself towards the west, these lakes may become the seats of flourishing cities, and of arts and sciences now unknown in Europe. Their latitude corresponds with that of the Black Sea, and the gulf of Venice. From the descriptions it does not appear that these lakes are ever impeded with ice.‡

The lake of Winipeg or Winipic‖ may well aspire to the name of an inland sea:§ but it yields considerably to the great Slave lake, or rather sea, a recent discovery, from which Mackenzie's river extends its course to the arctic ocean. The Slave sea, according to Mr Arrowsmith's map, is about two hundred miles in length, by one hundred at its greatest

* "I believe (says Carver) that if it was coasted round, and the utmost extent of every bay taken, it would exceed sixteen hundred" B.

† Nipegon and Michipicooton are the names of two of the rivers. B.

‡ Mr. Morse says that these lakes never freeze, but it is certain that the communications between them are frozen for a considerable time. The climate on the North and east parts of lake Superior is intensely cold in winter.

‖ Carver calls it Winnepeck; the French Lac Ouinipique. B.

§ According to Mr. Mackenzie, p. lxii. this lake discharges itself into Hudson's Bay, by the river Nelson, an elongation of the Saskashawin. See Arrowsmith's map of North America, edition 1802.

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breadth*. The geography of this lake is rather imperfect; and it is not improbable that other large lakes may be found in the western regions of North America, which remain unexplored.

The smaller lakes shall be briefly described in the divisions of territory to which they belong. It may here suffice to observe that there are probably above two hundred lakes of considerable size in North America; a singularity which distinguishes it from any other portion of the globe. A theorist might perhaps consider this an additional argument for the novelty of this continent; but the recent creation of America is one of the dreams of indolent philosophers.

In the ancient continent the rivers and mountains are usually confined within the limits of some great state, to which of course the description becomes appropriated. But in America these features are on so great a scale, that they pervade immense territories, divided among distinct nations, whence it would be difficult to assign a just arrangement. The river of Amazons, for example, pursues a long course in Spanish America, and an equal extent through the Portuguese territory. The river Missisippi, or rather Missouri, belongs in part to the United States, and in part to Spain or France. Amidst this uncertainty, it seems preferable to describe the chief rivers and mountains under the general heads of North and South America.

Length of course seems universally and justly considered as the chief distinction of a river, which becomes noble as it were by the extent of its genealogy, while the great breadth and depth of a short stream issuing from a lake would deserve little attention.

Missouri. In this point of view the Missisippi is the most distinguished among the rivers of North America; its source having already been traced to three small lakes above latitude 47°, and it enters the sea in latitude 29°, after a comparative course of about 1400 British miles.

The following account of this noble river is principally transcribed from Mr. Morse's system of American geography, and from the writings of Carver and Hutchins.

"The Missisippi receives the waters of the Ohio and Illinois, and their numerous branches from the east, and the Missouri and other rivers from the west†. These mighty streams united are borne down with increasing majesty, through vast forests and meadows, and discharged into the gulf of Mexico. The great length and uncommon depth of this river, says Mr. Hutchins, and the excessive muddiness and salubrious quality of its waters after its junction with the Missouri, are very singular. The direction of the channel is so crooked, that from New Orleans to the mouth of the Ohio, a distance which does not exceed 460 miles in a strait line, is about 856 by water. It may be shortened at least 250 miles, by cutting across eight or ten necks of land, some of which are not thirty yards wide. Charlevoix relates

* Carver says Winnipic is about 200 miles in length, north and south, and that its breadth which has never been properly ascertained, "is supposed to be about 100 miles in its widest part." R.

† It is now known that the Missouri receives the Missisippi. In other words, the Missouri is the principal stream.

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that in the year 1722, at Point Coupée, or Cut Point, the river made a great turn; and some Canadians by deepening the channel of a small brook, diverted the waters of the river into it. The impetuosity of the stream was so violent, and the soil of so rich and loose a quality, that in a short time the point was entirely cut through, and travellers saved fourteen leagues of their voyage. The old bed has no water in it, the times of the periodical overflowings only excepted. The new channel has been since sounded with a line of thirty fathoms, without finding bottom. Several other points of great extent, have, in like manner, been since cut off, and the river diverted into new channels.

"In the spring floods the Missisippi is very high, and the current so strong, that it is with difficulty it can be ascended, but this disadvantage is remedied in some measure by eddies, or counter currents, which are generally found in the bends close to the banks of the river, and assist the ascending boats. The current at this season descends at the rate of about five miles an hour. In autumn, when the waters are low, it does not run faster than two miles: but it is rapid in such parts of the river as have clusters of islands, shoals, and sand banks. The circumference of many of these shoals being several miles, the voyage is longer, and in some parts more dangerous, than in the spring. The merchandize necessary for the commerce of the upper settlements, on or near the Missisppi, is conveyed in the spring and autumn in batteaux, rowed by eighteen or twenty men, and carrying about forty tons. From New Orleans to the Illinois the voyage is commonly performed in eight or ten weeks. A prodigious number of islands, some of which are of great extent, intersperse that mighty river. Its waters after overflowing its banks below the river Ibberville on the east, and the river Rouge on the west, never return within them again, there being many outlets or streams by which they are conducted into the bay of Mexico, more especially on the west side of the Missisppi, dividing the country into numerous islands. These singularities distinguish it from every other known river in the world. Below the Ibberville the land begins to be very low on both sides of the river, across the country, and gradually declines as it approaches nearer to the sea. The island of New Orleans, and the lands opposite, are to all appearance of no long date, for in digging ever so little below the surface you find water, and great quantities of trees. The many beeches and breakers, as well as inlets, which have arisen out of the channel, within the last half century, at the several mouths of the river, are convincing proofs that this peninsula was wholly formed in the same manner. And it is certain, that when La Salle sailed down the Missisippi to the sea, the opening of that river was very different from what it is at present.

"The nearer you approach the sea this truth becomes more striking. The bars that cross most of these small channels, opened by the current, have been multiplied by means of the trees carried down by the streams, one of which, stopped by its roots or branches in a shallow part, is sufficient to obstruct the passage of thousands more, and to fix them at the same place. Astonishing collections of trees are daily seen in passing between the Balize and the Missouri. No human force is sufficient to remove them, and the mud carried down by the river serves to bind

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and cement them together. They are gradually covered, and every inundation not only extends their length and breadth, but adds another layer to their height. In less than ten years time, canes, shrubs, and aquatic timber grow on them, and form points and islands which forcibly shift the bed of the river.

" Nothing can be asserted with certainty respecting the length of this river. Its source is not known, but supposed to be upwards of 3000 miles from the sea as the river runs. We only know that from St. Anthony's falls in latitude 45°, it glides with a pleasant clear current, and receives many large and very extensive tributary streams, before its junction with the Missouri, without greatly increasing the breadth of the Missisippi, though they do its depth and rapidity. The muddy waters of the Missouri discolour the lower part of the river, till it empties into the bay of Mexico. The Missouri is a longer, broader and deeper river than the Missisippi, and affords a more extensive navigation; it is, in fact, the principal river, contributing more to the common stream than does the Missisippi. It has been ascended by French traders about twelve or thirteen hundred miles, and from the depth of the water, and breadth of the river at that distance, it appeared to be navigable many miles further*.

" From the Missouri river to nearly opposite the Ohio, the western bank of the Missisippi is, some few places excepted, higher than the eastern. From *Mine au Fer* to the Ibberville the eastern bank is higher than the western, on which there is not a single discernible rising or eminence for the distance of 750 miles. From the Ibberville to the sea there are no eminences on either side, though the eastern bank appear rather the highest of the two, as far as the *English turn*. Thence the banks gradually diminish in height to the mouth of the rivers where they are but a few feet higher than the common surface of the water.

" The slime which the annual floods of the river Missisippi leave on the surface of the adjacent shores, may be compared with that of the Nile, which deposites a similar manure, and for many centuries past has insured the fertility of Egypt. When its banks shall have been cultivated, as the excellency of the soil and temperature of its climate deserve, its population will equal that of any other part of the world. The trade, wealth, and power of America may at some future period depend, and perhaps center upon the Missisippi. This also resembles the Nile in the number of its mouths, all issuing into a sea that may be compared to the Mediterranean, which is bounded on the north and south by the two continents of Europe and Africa, as the Mexican bay is by North and South America. The smaller mouths of this river might be easily stopped up by means of those floating trees, with which the river, during the floods, is always covered. The whole force of the channel being united, the only opening then left would probably grow deep, and the bar be removed.

* The actual course of the Missouri, before its junction with the Missisippi, is very differently stated by different persons. Information received from respectable sources leads me to believe, that the principal direction of the river, in the whole of its course, is nearly west and east. B.

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" Whoever for a moment will cast his eye over a map of the town of New Orleans, and the immense country around it, and view its advantageous situation, must be convinced, that it, or some place near it, must in process of time, become one of the greatest marts in the world.

" The falls of St. Anthony, in about latitude 45°, received their name from Father Lewis Hennepin, a French missionary, who travelled in these parts about the year 1680, and was the first European ever seen by the natives. The whole river, which is more than 250 yards wide, falls perpendicularly about thirty feet*, and forms a most pleasing cataract. The rapids below, in the space of 300 yards, render the descent considerably greater, so that when viewed at a distance they appear to be much higher than they really are. In the middle of the falls is a small island about forty feet broad, and somewhat longer, on which grow a few scragged hemlock and spruce trees, and about half way between this island and the eastern shore is a rock lying at the very edge of the fall in an oblique position, five or six feet broad, and thirty or forty long. These falls are peculiarly situated, as they are approachable without the least obstruction from any intervening hill or precipice, which cannot be said of any other considerable fall perhaps in the world. The country around is exceedingly beautiful. It is not an uninterrupted plain where the eye finds no relief, but composed of many gentle ascents, which in the spring and summer are covered with verdure, and interspersed with little groves, that give a pleasing variety to the prospect.

" A little distance below the falls is a small island of about an acre and a half, on which grow a great number of oak trees, almost all the branches of which able to bear the weight are, in the proper season of the year, loaded with eagles' nests. The instinctive sagacity of these birds has taught them to choose this place, as it is secure, on account of the rapids above, from the attacks of either man or beast.

From the best accounts that can be obtained from the Indians, we learn that the four most capital rivers on the continent of North America, viz. the St. Lawrence, the Missisippi, the river Bourbon, and the Oregon, or the river of the west, have their sources in the same neighbourhood. The waters of the three former are said to be within thirty miles of each other, the latter is rather further west.

" This shews that these parts are the highest lands in North America, and it is an instance not to be paralleled in the three other quarters of the globe, that four rivers of such magnitude should take their rise together, and each, after running separate courses, discharge their waters into different oceans, at the distance of more than two thousand miles from their sources. For in their passage from this spot to the

* This account of the falls of St. Anthony, is taken from Carver. Father Hennepin concluded the height to be about sixty feet. More dependence, however, is to be placed upon Carver's calculation, because we know that Hennepin has monstrously mistated the height of the great Falls of Niagara. I must not omit to observe, that Hennepin, notwithstanding the errors into which he has occasionally fallen, appears to have been a man of strict veracity; and his travels may be read, not only with pleasure but instruction. B.

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bay of St. Lawrence, east; to the bay of Mexico, south; to Hudson's bay, north; and to the bay at the straits of Annian, west, where the river Oregon is supposed to empty, each of them traverses upwards of two thousand miles*.

Ohio. "The Ohio is a most beautiful river. Its current gentle, waters clear, and bosom smooth and unbroken by rocks and rapids, a single instance only excepted. It is one quarter of a mile wide at Fort Pitt; 500 yards at the mouth of the Great Kanhaway; 1200 yards at Louisville; and the rapids half a mile in some few places below Louisville, but its general breadth does not exceed 600 yards. In some places its width is not 400, and in one place particularly, far below the rapids, it is less than 300. Its breadth in no one place exceeds 1200 yards, and at its junction with the Missisippi neither river is more than 900 yards wide."

Mr. Morse proceeds to state the precise measurement of the length of the Ohio, with all its windings, from Fort Pitt to its junction with the Missisippi, amounting to 1188 miles. The inundations commonly begin with April, and subside in July. A vessel drawing twelve feet water might safely navigate from Pittsburg to the sea. Two considerable rivers unite to form the Ohio, namely the Monongahela, and the Allegheney, both of them subservient to navigation. The last of these rivers rises in the states of New York and Pennsylvania, the first in Pennsylvania and Virginia.

From the preceding ample description, which the great importance of these rivers to the prosperity of North America authorizes, it appears that, setting aside the capricious distinctions of the savage tribes, the Missouri must be regarded as the chief river which constitutes what is called the Missisippi. Measured on the same merely comparative scale which has been adopted to give a general idea of the length of the rivers in Europe and Asia, the Missouri or Missisippi will be about 2000 miles in length. The great river of St. Lawrence is far inferior, being chiefly remarkable for its breadth. In South America the Maranon, or river of Amazons, measured on the same comparative scale, will be found to be about 2300, and the Rio de la Plata about 1900. In the same comparative way, measured on the accurate planisphere of Mr. Arrowsmith, the Kian Ku exceeds the Missouri and rivals the Maranon, which last is probably also rivalled by the Ob. Some deceptions have arisen on this curious subject, as the large rivers in America have been computed by actual navigation of the whole, or a part, in which every winding is taken into the account; while the length of those in Asia has been merely assumed from the general appearance in maps, without due attention to the innumerable deviations. A favourable climate, and other circumstances, render the

* These observations respecting the sources, &c. of the four above-mentioned rivers, are taken, nearly in his own words, from Captain Carver's travels. This writer says that he learned the circumstances which he has stated, from Indian nations, and from his "own observations." It is now supposed, however, that little dependence is to be placed upon the information. Even the existence of the Bourbon is doubted, but as it was said to flow into Hudson's bay, it may be the river Saskashawin; of which the Nelson may be regarded as a continuation.

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American rivers more navigable; the Ob being impeded by ice, and the Kian Ku by the alpine rocks of Tibet*.

ST. LAWRENCE. The noble river of St. Lawrence is universally regarded as the second in North America, being not less than ninety miles wide at its mouth, and navigable for ships of the line as far as Quebec, a distance of 400 miles from the sea. Near Quebec it is five miles in breadth; and at Montreal from two to four†. Though there be some rapids, yet this grand river may be considered as navigable to Kingston, and the lake Ontario, 743 miles from the sea. It is difficult to define the precise source of the St. Lawrence, though that name be generally confined to the river issuing from lake Ontario; while the Niagara, which flows from the lake Erie, is regarded as a distinct stream‡. As in Asiatic geography the Angara is traced from

* From Mr. Arrowsmith's last map of the United States, with corrections and additions to 1802, and his interesting map of North America of the same date, it appears that the *Missisippi* rises from the Turtle Lake, lat. 47° 40', not far to the south of the Red Lake. But from the last map, and the most authentic travellers, it is clear that the *Missisippi* should properly be termed the MISSOURI, the last being the most considerable river, and rising from sources in the western chain about 600 British miles more remote than the furthest source of the Missisippi, so that the comparative course of the Missouri may be about 2000 British miles. The Missouri, like the St. Lawrence and river of Amazons, is a white muddy stream, while the Missisippi is clear like the Black River, which falls into that of Amazons. Charlevoix, ii. 218, has described the confluence as the grandest in the world. Each river is about half a league in breadth; but the Missouri is the broadest and most rapid. Le Page du Pratz, in his history of Louisiana, (i. 202, of the English abridgment) says that the French word *Missisippi* is a contraction of the savage term *Meact Chassipi*, which literally denotes the ancient Father of Rivers. Mr. Hutchins observes that the natives still call it Meschasipi. The precise import of the word does not seem to be completely ascertained. It is believed, however, that the word signifies the great river: or, according to some, Fish river. The terminating word, *sippi*, or *sipi*, has a very extensive range in North America, and unquestionably signifies a river. (see New Views, &c. p. 80), When the army of Soto visited, Florida, in 1539, they found different names applied to the river, in different places: but nothing like Missisippi occurs in the relation of that celebrated expedition, or rather ramble. Imlay (p. 405) observes, that the Missouri "affords a more extensive navigation, and is a longer, broader, and deeper river, than the Missisippi." The journey of a great savage traveller to the sources of the Missouri and to the great western river, Du Pratz, ii. 125, seems to correspond with recent discoveries, and the other nation probably still exists. The free navigation of the Missisippi was secured to the United States by the treaty with Spain, 1795, It is not probable that the late treaty between Spain and France, will preclude the Americans from any of the great advantages which they enjoyed by the Spanish treaty.—The inundations of the river begin in March and subside in July. It appears from Mr. Mackenzie's Voyages, 1802, 4to. p. xxxvi. that some rivers of North America have sunk more than ten feet beneath their ancient level.

† Weld, ii. 56. 8vo.

Not always: for this stream is sometimes denominated the St. Lawrence, though it is more generally called the outlet of lake Erie, or Niagara river. The first of these names is so appropriated that it ought to be retained in preference to any other. Volney, whose attachment to saints has never been suspected, exceedingly disliked the name St. Lawrence, as applied to any portion of that majestic river. He expressed to me a wish, that the river might be named *Hochelaga*, its ancient Indian appellation. B.

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the sea of Baikal, without assuming the Selinga as a further source, so by analogy the St. Lawrence cannot be traced beyond the lake Ontario, nor can geographical usage permit it to be traced to the lake Superior; and far less, with certain writers, to the lake Winipic, which, according to the best maps, has no communication whatever with what has been above called the sea of Canada, consisting of the joint lakes Superior, Michigan, and Huron. The length of the St. Lawrence may therefore be about 700 British miles, the breadth being the grand characteristic.

The other chief rivers in North America are the Saskashawin, the Athabasca, the Unjiga or Mackenzie's river*, the Rio Bravo, which flows into the gulf of Mexico; that of Albany, which joins Hudson's Bay: Nelson river and Churchill river are also considerable streams which flow into that sea; but their geography is far from being perfect. The same observation must be extended to the Oregan, or great river of the west, which, confined by a chain of mountains, runs south, till by a western bend it joins the Pacific. But the discovery of the western regions of America will doubtless disclose some considerable streams in that quarter.

Mountains. The mountains of North America are far from rivalling the Andes in the south. Some irregular ranges pervade the Isthmus, but it seems mere theory to consider them as connected with the Andes, as they have neither the same character nor direction. In the Isthmus there are also several volcanoes; but the natural history of Spanish America is extremely imperfect.

The centre of North America seems to present a vast fertile plain, watered by the Missouri and its auxiliary streams. On the west, so far as discovered, a range of mountains proceeds from New Mexico in a northern direction, and joins the ridge called the Stoney Mountains, which extended to the vicinity of the Arctic ocean. The Stoney Mountains are said to be about 3500 feet above their base, which may perhaps be 3000 feet above the sea. In general, from the accounts of navigators who have visited this coast, it seems to resemble that of Norway, being a wide alpine country of great extent; while the shore, like that of Norway, presents innumerable creeks and islands. This alpine tract, from the Stoney Mountains and Mackenzie's river westwards to the source of the Oregan and Beering's strait, may perhaps contain the highest mountains in North America, when completely explored by the eye of science. On the north-east, Greenland, Labrador†, and the countries around Hudson Sea, present irregular masses covered with eternal snow, with black naked peaks, resembling in form the spires of the Alps, but of far inferior elevation, mountains generally decreasing in height towards the pole.

* See the artcle native tribes for further details.

† A high ridge passes south-west from the coast of Labrador to the source of the Utawas, dividing the rivers that fall into St. Lawrence and Hudson's Bay. The Stoney mountains run parrallel with the Pacific from Cook's entry to the river Columbia, where they are more distant from the coast and less elevated. The rocks west of Winnipic are soft limestone, on the east a dark grey granite: and all the great lakes are between the limestone and granite ranges. Mackenzie, 400, 401, 403.

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Apalachian Mountains. The most celebrated mountains in North America are those called the Apalachian, or Allegheny, passing through the territory of the United States from the south-west to the north-east*. According to the best maps they commence on the north of Georgia, where they give source to many rivers running south to the gulph of Mexico; and to the Tennessee and others running north. There are several collateral ridges, as the Iron or Bald Mountains, the White Oak Mountains, and others; the exterior skirt on the north-west being the Cumberland Mountains. The Apalachian chain thence extends through the western territory of Virginia, accompanied with its collateral ridges, the breadth of the whole being often seventy miles and proceeds through Pennsylvania, then passes Hudson river; and afterwards rises to more elevation, but seems to expire in the country of New Brunswick†.

The Apalachian chain may thus extend about 900 geographical miles, a length unrivalled by any European mountains, except the Norwegian alps. In no chain perhaps are the collateral ridges more distinct; and a naturalist would at once pronounce that the central, or highest, must be granitic, the next shistose, and the exterior belts calcareous. The granite seems commonly to consist of white feltspar, bluish or rather pellucid quartz, and black mica. The schistose band, generally metalliferous in other regions, here presents copper ore; and in Canada lead and silver are said to have been discovered. The lime stone contains, as usual, many petrifactions, particularly the cornu ammonis, a small scallop shell, and several sorts of corals‡. The height of the chief summits does not appear to be precisely ascertained, but probably does not exceed 4000 feet above the sea; and they are often clothed with forests. Mr. Weld conjectures that the Peaks of Otter, the highest of what are called the Blue Mountains, are little more than 2000 feet in height; and at any rate much inferior to that of Snowdon, in Wales‖.

* Some of the North American tribes call the Allegheny mountains *Pæmotinck*. B.

† The chief summits appear to be in the state of New Hampshire; where the White mountains are, by some writers, reported to be 9000 feet above the sea. For an interesting account of these mountains, see the late Dr. Belknap's paper in the second volume of the transactions of the American Philosophical Society. See also Morse's American Geography. The Duke de Rochefoucault says, that no mountains in North America exceed the Vosges, or Wasgau, in height. Kalm, ii. 352, observes that the snow, even on the highest mountains, always melts during the summer. This with respect to the mountains east of the Missisippi, is strictly true. It is probable that the White mountains do not much exceed 4000 feet; and the glaciers of the Pyrenees at 9000 feet must shew that the White mountains are much less elevated than has been imagined.

‡ Pennant, A. Z. ccxxix.

‖ Mr. Jefferson, however, says, " from data, which may found a tolerable conjecture, we suppose the highest peak to be about 4000 feet perpendicular, which is not a fifth part of the height of the mountains of South America." I can hardly doubt that the peaks of Otter are at least 4000 feet in height above the tide water of James's river. But the height of the North American mountains, in different parts of the continent, remains to be ascertained by some future naturalists." B.

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The late travels of the Duke de Rochefoucault in North America, present some valuable information concerning the orology*. The primitive calcareous rock is mingled, in veins or banks, with the granitic, and is evidently contemporary. Near Philadelphia large pieces of talc appear instead of mica. There are also veins of horneblende, quartz, and marble, in the position of metallic veins. It is a remarkable feature in the mineralogy that the granitic mountains approach nearest to the sea, while at a greater distance the rocks are calcareous; and the red primitive limestone is sometimes covered with breccia, and argillaceous schistus. The lakes of Upper Canada are surrounded with calcareous rocks; while in Lower Canada, from Montreal to the sea, the granite predominates†. At the isle of St. Helen this substance is apparent, and the mountain of Beloeil displays much black schorl. The black slate of our traveller is the black schistose limestone of Kalm. The rock of Quebec is said to consist of grey granite, mingled with schorls; and was called the rock of diamonds, because quartz crystals were found. In the vicinity blocks of granite are mingled with limestone, and the bank of Newfoundland is supposed to be a mass of granite covered with sand. Towards New York and Boston the rocks are of a soft granite interspersed with limestone and schistus; but towards Carolina and Florida the granitic mountains are at a considerable distance from the sea, which seems gradually to have retired. This traveller is of opinion that the highest mountains of North America do not exceed the elevation of the Vosges in France that is perhaps four or five thousand feet.

But from the travels of Kalm a far more skilful naturalist, it would appear that the rocks of North America often consist of a substance unknown to modern systems of mineralogy, and which it has been proposed to term *calcareous granite*, the absence of the felspar being supplied by limestone. The Swedish traveller minutely describes this substance as consisting of grey limestone, purple, or garnet coloured quartz, and black mica‡. The limestone effervesces strongly with aqua fortis; and there are some particles of felspar. Another mountain near the river St. Lawrence, is composed of red felspar, black mica, white limestone, with grains of the purple or red quartz. Sometimes this calcareous granite is schistose, or assumes the form of gneiss. Part of the hills near the isle of Orleans is composed of grey quartz, reddish and grey lime-stone, and grains of sand. Near Fort St. Frederic, or Crown Point, Kalm observed fragments of granite mixed with schorl, without any calcareous addition; and he found ammonites about two feet in diameter. Towards the lake Champlain he observed quantities of red sand, which seemed to be decomposed or pounded garnets||. The Apalachian mountains he does not appear to have examined: but he mentions the calcareous granite as frequent in Pennsylvania, and often used in building at Philadelphia. He describes the

* See also the Journal des Mines, No 54. Ventose, an. 7.

† In the neighbourhood of the falls of Niagara, as at the bottom on the British side, there are large quantities of gypsum, or plaster of Paris. It is sometimes called by the people of the country, "the spray of the falls." I have examined many specimens, in different states of hardness, &c. on the spot. B.

‡ ii. 346, 349, 357.

|| Ibid. 196, 199.

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lapis ollaris of New England, as sometimes spotted with starry asbestos; while green soap rock and amianthus are common in Pennsylvania. The hatchets of the savages were frequently of fine basalt; their knives of quartz and petrosilex; their kettles of lapis ollaris, grey or green; and their tobacco pipes of the same substance; but those of the chiefs, of beautiful red serpentine, from the west of the Missisippi*.

The mountains in the Isthmus, as well as those in the western part of North America, are certainly of far superior elevation: and in most maritime divisions of the old and new continents the highest mountains are towards the west, as their most precipitous sides generally front the west and south. But of the Isthmus, the kingdom of Mexico and California, the natural history and geography are far from being clearly illustrated. In the province of Darien the Andes, according to the best maps, seem to expire in the ridge called Sierra Tagargona, which may be said to be lost in the sea on the west of the gulf of Darien. This ridge, with the peak of Panama, belong to South America: but the inspection of any good map of this part will sufficiently shew that the ridges in the province of Panama have not the smallest connection with the Andes, but are scattered in every direction. On the west of that province, as already stated, a considerable chain passes north and south, which may be regarded as a natural division between the two great portions of America. This chain is called the Sierra de Canatagua. The ridges in Veragua also run north and south and on the west of that province is the volcano of Varu. Of the nature and height of the mountains in Mexico there is no particular account. Not far from Vera Cruz, Chappe D'Auteroche ascended a mountain of great height, which seems to have been volcanic;† and he adds that the mountain of Orisba is said to be the highest in that region, the snowy summit being visible from Mexico at the distance of twenty leagues.

On the western side of North America volcanos have been observed by navigators; one is said to exist in the state of New Hampshire‡; and there are some reasons to believe, that there was formerly one in North Carolina, near the northern boundary of that state‖.

According to the usual arrangement of this work, the description of the new continent begins with North America, because that division contains the most important power, that of the United States. The account of their territory shall be followed by that of the Spanish and British possessions in North America. Another division shall be reserved for the native tribes, and unconquered countries; and this part shall close with a brief description of those North American islands commonly called the West Indies.

* Of the same description were the celebrated *Calumets*, or pipes of peace, so called by the French settlers in Canada, from the Norman word *chalumeau*, the native term being *poagan*, and the Iroquois *ganondao*. Lahontan, i. 270. He means the head of the calumet, eight inches long, while the mouth projected about three inches; the pipe or stem, being about four or five feet in length, was probably of wood, and was adorned with feathers. Ibid. 47.

† Voyage to California, p. 33.

‡ Pennant, A. Z. ccxxx. Morse mentions another mountain in the same state of volcanic appearance, and 3254 feet high, if the measurement be exact.

‖ See Transactions of the American Philosophical Society, vol. iii. B.

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THE UNITED STATES OF AMERICA.

CHAPTER I.

HISTORICAL GEOGRAPHY.

DIVISIONS.—BOUNDARIES.—HISTORICAL EPOCHS.

DIVISIONS. THE territories of the United States have been classed under three grand divisions, the northern, the middle, and the southern. But to this division there are many objections.

The northern states are Vermont, New Hampshire, Massachusetts, Connecticut, and the small state of Rhode Island. The district of Maine in this quarter belongs to the state of Massachusetts, and its eastern boundary extends to a river called St. Croix, longitude sixty-seven degrees west from London, while on the north, what is called Albany ridge, divides it from the British possessions. These northern states have been known since the year 1614, by the special appellation of NEW ENGLAND, and are remarkable for the comparative smallness of the subdivisions, the five provinces being only of similar extent with New York, Pennsylvania, or Virginia.

The middle states are New York, New Jersey, Pennsylvania, Delaware, and the territory on the north-west of the Ohio.

The southern states are, Maryland, Virginia, Kentucky, North Carolina, South Carolina, Georgia, Tennessee, and the Missisippi territory. The great country of Louisiana, now ceded to the United States, will doubtless, at no very distant period, be divided into several distinct states, and in giving names to these, the Americans will have an opportunity of manifesting their veneration for, and their gratitude to some of the illustrious men who first discovered the countries of the new world, or have contributed to its freedom and happiness.

DIVISIONS. These various states are subdivided into counties, an enumeration of which rather belongs to topography.

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BOUNDARIES. The eastern boundary is the Atlantic Ocean, and the western the great river Missisippi, which is considered as a limit of Spanish America. On the north an ideal line, pervading the great lakes of Canada, is continued along the river St. Lawrence to latitude forty-five degrees, not far to the south of Montreal; when it passes due east, and follows a chain of mountains north-east and afterwards diverges south-east to the river St. Croix, which falls into the bay of Fundi. On the south a line, merely arbitrary, about latitude thirty-one degrees, divides the United States from the Spanish dominions of West and East Florida.

The greatest extent of the united territory is from east to west, in the northern part, where it exceeds 1300 British miles; and the line along the shores of the Atlantic nearly corresponds: but the breadth, from the Canadian lakes to the southern limit, is about 1000 British miles. The square acres have been computed at 640 millions; and those covered with water being supposed fifty-one millions, there will remain 589 millions of acres.

ORIGINAL POPULATION. The original population of this extensive and flourishing country consisted of numerous wild and rude tribes, whose denominations and memory have, in many instances, almost perished, but some idea of their manners shall be given in describing the native nations. The progress of the English colonies has been already detailed; and there are numerous descendants of the Germans, Dutch, and Swedes, who formed considerable settlements in this region. After the first ineffectual colony planted by Ralegh, the most important events in the progressive geography were the discoveries of the noble bays of Chesapeak and Delaware*, while the northern lakes, and many other grand features of nature, were disclosed by the French settlers in Canada.

HISTORICAL EPOCHS. Among the chief historical epochs of the United States must first be classed their respective origins, as above explained. The introduction of tobacco in Virginia, 1616: the intended massacre of the English by a native Wirowance, or chief, 1618, and the subsequent war: the abolition of the first charter, 1624: the struggles against the arbitrary disposition of Charles I; the privileges granted by that monarch, and the loyalty of the Virginians, who did not acknowledge the commonwealth till 1651: the insurrection of Bacon against the authority of Charles II; are epochs of Virginian story. The colony in the northern provinces called New England was chiefly founded by the Puritans, and was strengthened by the intolerant spirit of archbishop Laud. Sectarian subdivisions occasioned new colonies; and the Pequods, a native tribe, were extirpated. The colonies in the south are of more recent foundation, and present still fewer materials for history.

* Delaware. By Mr. Pinkerton and other writers the word is written without the final *e*. This, though the more proper spelling, is rarely adopted in America. This noble river was for a long time known by the name of South river, to distinguish it from the Hudson, which was called North river. (See the Noris orbis of De Laet, published at Leyden in 1633.) In some of the first printed accounts of Pennsylvania, or as it was then called New Sweden, the Delaware was named Charles river. This river is called by the Delaware Indians Lennapeyr Hittuk, which signifies the Indian river. B.

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In several systems of geography the original charters and minute events of each state are detailed apart, a plan more reconcileable with topography. The several streams which constitute a large river cannot be delineated in general geography; and far less those provincial epochs which rather belong to a prolix history. It will therefore be sufficient for the present design to commemorate the chief epochs of that contest which terminated in the independence of the United tates. The peace of 1763, after a war of immense expense, was crowned by the cession of Canada, and the consequent annihilation of the French power in North America. Canada was acquired at the price of about fifty times its real value: and the acquisition of Canada was the loss of America: so incapable is human prudence of presaging events, and so often does Providence effect objects by the very means which men employ to avert them! For the colonies were not only thus delivered from constant fear and jealousy of the French, which bound them to the protection of the parent country, but the vast expenditure of that splendid and absurd war occasioned such an increase of taxation, that the country gentlemen of England were easily induced to wish that a part of it might be borne by the colonies.

1. The Stamp Act, passed in 1765, is considered as the first attempt to raise a supply of British revenue from North America; but by the firm opposition of the colonies it was repealed in 1766. Similar attempts of a more oblique nature were alike unsuccessful: and in 1770 the duties were taken off except three pence a pound on tea which, within the space of half a century, had become a necessary of life.

2. In 1773 an armed schooner stationed off Rhode Island was burnt by the Americans, the first act of open opposition to the parent country.

3. The tea sent by the East India company to the port of Boston in New England was thrown into the sea by seventeen persons in the disguise of American savages. This led to what is called the Boston Port Bill, March 1774, and the act for altering the government of Massachusetts Bay.

4. Deputies met at Philadelphia, 26th October, 1774, constituting the first Congress, but independence was not yet asserted. Some military manœuvres of the British General Gage increased the ferment, and a Provincial Congress, presided by Mr. Hancock, assembled at Concord, nineteen miles from Boston.

5. Other acts of the British Parliament, 1775, inflamed the discontents, and the civil war commenced with a skirmish between the British troops and American militia at Lexington. The battle of Bunker's hill, or rather Breed's hill, near Charlestown, was fought on the 17th June 1775. Two days before, the American Congress had appointed George Washington, a native of Virginia, commander of their armies, who in March 1776 entered Boston in triumph.

6. On the 4th of July 1776 the American Congress published their solemn declaration of Independence.

7. On the 30th January 1778 the king of France concluded a treaty with the United States. The surrender of General Burgoyne's army, at Saratoga 17th October 1777, is supposed to have greatly influenced this alliance, so important to the interests of the Americans.

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8. The surrender of Lord Cornwallis, at York Town, in Virginia, on the 12th October 1781.

9. The treaty of peace, 30th November, 1782, by which the independence of the United States was solemnly acknowledged after a struggle of seven years; while that between Spain and the United Provinces continued, with some intermissions, for about sixty years: but the profuse expense of modern warfare counterbalances its brevity.

10. The constitution of the United States having been found imperfect, a new plan was submitted to the several states, and finally received their approbation, On the 30th of April 1789, General George Washington was inaugurated President of the United States, during the session of Congress at New York. This great man, after serving his country, as its first magistrate, for eight years, retired from public life, and died after a short illness, at the age of sixty-eight years, on the 14th of December, 1799. Mr. John Adams, a native of Massachusetts, who had early distinguished himself in the cause of his country, was inaugurated President on the 4th of March 1797; and Mr. Thomas Jefferson (the present President) on the 4th of March 1801.*

* Mr. Jefferson is a native of Virginia, where he was born about the year 1741. Previously to his election to the important station which he now holds, he had filled several distinguished places, both in the individual government of his native state, and in that of the United States. He had been governor of Virginia, embassador from the United States to the court of France, and Secretary of State to the United States. His Notes on the state of Virginia exhibit Mr. Jefferson in a very favourable point of view as a man of various and correct knowledge. In science, his favourite pursuits are natural philosophy (including mathematics) and natural history. B.

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CHAPTER II.

POLITICAL GEOGRAPHY.

RELIGION.—GOVERNMENT.—LAWS.—POPULATION.—ARMY.—NAVY.—REVENUE.—POLITICAL IMPORTANCE.

RELIGION. THE religion of the United States of America is the reformed system of Christianity: but every sect is liberally treated with universal toleration, or rather equal independence. In Maryland as the first settlers were Roman Catholics, so that system is still very numerous and respectable*; and in Connecticut, the reformed episcopal scheme is admitted. It would be a difficult task to enumerate the various denominations, tenets, and new doctrines, which prevail in the different states; but from the following account of those in Massachusetts and Pennsylvania some judgment may be formed of the whole. Mr. Morse enumerates the sects in Massachusetts in the following order:

Denominations.	Number of Congregations.	Supposed number of each denomination.
Congregationalists†,	400	277,900
Baptists,	84	58,266
Episcopalians,	16	11,104
Friends or Quakers,	10	6,940
Presbyterians,	4	2,776
Universalists,	2	1,388
Roman Catholics,	1	694
	517	358,798

In Philadelphia, the places of public worship are thus numbered:

The Friends, or Quakers,	5	The Swedish Lutherans,	1
The Presbyterians and Seceders,	6	The Moravians,	1
The Episcopalians,	3	The Baptists,	1
The German Lutherans,	2	The Universal Baptists,	1
The German Calvinists,	1	The Methodists,	1
The Catholics,	4	The Jews,	1

* Mr. Pinkerton says the Roman Catholic system "continues to preponderate" in Maryland. This is unquestionably an error. B.

† These are moderate independents, who suppose that each congregation possesses complete ecclesiastic power, but profess strict amity with other congregations.

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GOVERNMENT. The government of the United States is vested, by the constitution of 1789, in a President and two councils, under the denomination of Congress. The President is chosen for the term of four years. The Senate or superior council consists of two senators from each state, chosen by the state legislatures, every six years. The House of Representatives is elected by the people, every second year, and is not to contain more than two hundred members, each representing, according to the progress of the population, from 33,000 to 50,000 inhabitants. The legislative power is vested in the two councils, with a qualified negative upon all laws vested in the President; while the executive is lodged with the President; and a Vice-President is also chosen to supply his place on any emergency, and is the constitutional President of the Senate to regulate the proceedings; but he cannot debate, nor can he vote, unless the members are equally divided. The President commands the army and navy, and may pardon offences, except in case of impeachment; he makes treaties, with the consent of two-thirds of the Senators, who are also to advise in the appointment of ambassadors, and all other public officers. Particular regulations are formed to prevent any distinct state from assuming offices which belong to the community, such as forming treaties, issuing letters of marque, and the like acts of independent sovereignty, which might endanger the union of the whole. The judicial power is lodged in one supreme court, and in such inferior courts as the Congress may ordain, the judges holding their offices during their good behaviour. Each state has also its peculiar government, consisting commonly of a Governor, a Senate, and House of Representatives, annually chosen.

LAWS. The law of the United States is of a complex character, relating, *first*, to objects of State jurisdiction, and, *secondly*, to objects of Federal jurisdiction.

I. The objects of State jurisdiction comprehend every case, which is not exclusively of Federal jurisdiction, or not expressly prohibited by the Federal Constitution. The law affecting these objects, is either written or unwritten. The *written* law of every State is composed, 1st, of the constitution of the United States, acts of congress, and treaties: and 2nd, of the constitution of the State, and the acts of the State Legislature. The *unwritten* law of every State is composed, 1st, of so much of the common law of England, in criminal and civil cases, as was applicable to the circumstances of the State, when it was first settled: and 2nd, of the customs and usages of the people, sanctioned by time, or recognized by the courts of law. The statute law of England, prior to the American revolution, has force in the respective states only under particular circumstances: 1st, Where the statute was enacted previously to the settlement of the colony, and was suitable to the colonial situation and pursuits of the settlers. 2nd, Where the provisions of the statute were extended, by its own words, to the colonies. 3rd, Where the colonial legislature has adopted in general terms, or re-enacted in detail, the English statute. 4th, Where the courts of law have recognized and enforced a convenient practice, originating in the presumption, that a statute had been extended, and was in operation, in the colony. The evidence of the law, prior to the American revolu-

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tion, was the same as in England; but subsequent to that epoch, the reports, and elementary works of English jurists, are cited in the American courts, not by way of authority, but by way of analogy and illustration. It will readily occur to the reader, that on the same principle, which recognizes the law of nations, the law of merchants, the civil law, and the canon law, as a part of the common law of England, those codes are also recognized, in the system of American jurisprudence, as affording the rules of decision, upon the subjects to which they respectively apply.

The law of the several states is administered, as in England, through the medium of judicial and ministerial officers, acting collectively as courts, or individually as magistrates. The judicial officers are judges, justices of the peace, registers of wills, or other similar officers, exercising a jurisdiction of an ecclesiastical nature, for the probate of wills, and issuing letters of administration. The ministerial officers are sheriffs, coroners, &c. &c. In each state, generally speaking, there are a court of errors and appeals, a supreme court, county courts of common pleas, and quarter sessions, an orphan's court, and a register's court. In each state, generally speaking, the justices of the peace have individually a limited cognizance of civil suits, besides the authority common to all judicial officers, in criminal matters.

II. The objects of Federal jurisdiction are confined to the cases expressly delegated or contemplated, by the constitution of the United States; and all these objects both as to civil and criminal matters, are of a national character. It follows from this view of the subject, that the law of the United States consists entirely of *written law*; to wit, of the constitution of the United States, the acts of Congress, and treaties. It is true, that in criminal, as well as in civil cases, Congress, in order to effectuate the powers expressly delegated to the Federal government, may adopt the unwritten law of any individual state of the union, of England, of France, or of any other nation; but still it is only by force of the written law of the United States, that the adoption can be accomplished. In the specified *civil cases*, the constitution gives to the Federal courts, sometimes original, and sometimes appellate jurisdiction: sometimes concurrent with the state courts, and sometimes exclusive; and by an act of Congress, made to effectuate the judicial powers of the union, it is expressly provided, that "the laws of the several states, shall be regarded as rules of decision in trials at common law, in the courts of the United States." As the laws of the several states consist of the unwritten law, as well as of the written law, this provision gives, of course, a common law jurisdiction, in civil cases, to the Federal courts. But, in *criminal cases*, no such general provision exists. The penal code of the United States rests, therefore, upon the constitution, and the several acts of Congress, for defining and punishing crimes and offences: and if the jurisdiction of the Federal courts, in criminal matters, is confined to the penal code of the United States, it has been anxiously asked, how it can embrace crimes and offences at common law? The question has generated a diversity of opinion, and even the judges of the supreme court of the United States, have pronounced contrary decisions upon it. The federal courts having jurisdiction of the subject, are

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governed, according to its nature, by the laws of the United States, or of the individual states, by the law of nations, the law of merchants, and by the civil and canon law.

The law of the United States is administered, through the medium of Federal courts and officers, similar to those of the individual states, admitting, in some instances, the auxiliary aid of the state courts and magistrates. The supreme court of the United States consists of a chief justice, and five associate judges, and sits at the seat of the national government. The United States are divided into five circuits, each circuit composed of a specified number of districts, or states; and a circuit court, held by a judge of the supreme court, and the district judge of the proper state, sits twice a year in each district. Each state is erected into a federal district, in which a court is held four times a year by the district judge. Besides an attorney-general for the union, the United States appoint an attorney, and a marshall (who has all the powers of a sheriff) for each district.

Population. The population of these extensive territories was formally estimated, by order of Congress, in 1790, and found to be 3,930,000, exclusive of the inhabitants north-west of the Ohio, supposed to be 20,000. It is inferred that the population is doubled every twenty years, in which case the population may now amount to at least 6,000,000,* if we include the newly acquired country of Louisiana. The number of slaves in 1790 was 697,697, and has probably been little increased, as many emancipations have taken place, and the slave trade is discountenanced, in most of the states. It is much to be regretted that it is not prohibited in all the states.

Army. A small military force is maintained for the sake of supporting public order, and upwards of 5000 were raised for three years, for the defence of the frontiers. But a standing army is deemed incompatible with the republican government; and the strength of the states is computed from the militia, which is stated by Mr. Morse at 700,000. Yet his mode of reasoning is vague and inconclusive: and it would seem more agreeable to the usual rules, to estimate the utmost effective force at 150,000, a number sufficiently formidable to subdue the whole continent, and to set foreign invasion at defiance.

Navy. The navy of the United States is still of little consequence, though a few ships were equipped during the recent short dispute with France, and are still employed in the Mediterranean against the Bey of Tripoli. In the course of a century, it is probable that the maritime spirit of their progenitors will be displayed, and that the American fleet will rival any in Europe.

Revenue. The revenue of the United States is derived from the duties on imports and tonnage. Mr. Morse states the revenue at little more than 2,000,000 of dollars†, and the expenses at only 740,000. But the national debt is supposed to amount to 80,000,000 of dollars.

* Connecticut, the most populous state, is supposed to contain sixty-five for each square mile.

† The dollar is equal to 4*s*. 6*d*. sterling. Imlay, 189, estimates the American debt at 16,000,000 sterling, and the funds bore an interest of about six per cent.

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This however is reducing very fast. The war with the Indians, which terminated in 1795, is said to have cost the states one million of dollars yearly.

Political Importance. The political importance of the United States will depend in a great measure, upon the individual conduct of the states; as the general prosperity can only be insuredwhile they cherish the principles of union. So far as the nation has developed its character and its energy, the effect has been honourable and instructive; but we must wait sometime longer, before it would either be wise or just, to attempt to fix the standard of the physical, moral, or political attributes, of a country, so suddenly, and so rapidly, extending the sphere of human action.

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CHAPTER III.

CIVIL GEOGRAPHY.

MANNERS AND CUSTOMS.—LANGUAGE.—LITERATURE.—UNIVERSITIES.—CITIES.—EDIFICES.—INLAND NAVIGATION.—ROADS.—MANUFACTURES AND COMMERCE.

MANNERS AND CUSTOMS. THE manners and customs of the inhabitants of the United States may be conceived to differ little from those of their British ancestors, except in a few local particularities, to be learned from the common books of travels, which sometimes explain even the little defects visible in particular states. Travellers pretend to have observed, even in Philadelphia, a want of urbanity, and a spirit of coldness and reserve, which renders society melancholy. The inhabitants of Philadelphia are not, it must be confessed, distinguished for their urbanity. But the society in this great city is by no means melancholy. It is marked, indeed, by a distant reserve, which seems, in part at least, to spring out of an attachment to wealth, which singularly designates the character of Americans, in almost every part of the union. Musical concerts are more frequented than the theatre; and in general there is too little taste for those amusements which are connected with the arts and sciences. In some of the states gaming is much too prevalent; but the deepest game consists in selling unsettled lands at advanced prices; a species of stock-jobbing, which, like a Missisippi scheme, stimulates the avarice of many*.

LANGUAGE. The English is the prevailing language that is spoken in every part of the United States. Since the conclusion of the American war in 1783, the German and other languages are much less attended to; and it requires not the gift of prophecy to discover, that in the term of fifty years, or even less, the English will be the exclusive language of this great tract of country. It is by no means true, that the English "within these ten years has become more and more corrupt, so that a British reader sometimes cannot divine the meaning of an American phrase." On the contrary, it is a fact, that the English tongue is spoken in uncommon purity in many parts of the union; unquestionably with more purity than it is spoken in several of the counties of England. Already there have appeared a number

* Mr. Pinkerton observes that the "cruel operation known in the southern states by the name of gouging, is a disgrace to human nature, and ought to be punished with death." It is pleasing to observe, that this vile practice (of which however the Americans were not the inventors) is much less common at present than it was before the revolutionary war. E.

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of native American authors, whose writings may fairly lay a claim to correctness, elegance, and even eloquence of style.

LITERATURE. The books published in British America were chiefly of a religious or political kind; and those of Cotton Mather printed in the end of the seventeenth century, at Boston, concerning some supposed witches in that city, are remembered on account of their fanatic cruelty. But before the emancipation, Franklin had become a distinguished name in letters; and many authors of considerable merit have since arisen in the United States. Literary academies publish their transactions; while magazines, reviews, and newspapers contribute to the popular diffusion of useful knowledge. Education seems also to attract more and more attention, and to be conducted in numerous seminaries with the most laudable care. In the northern states, called New England, schools are established in almost every township.

UNIVERSITIES. In New York a college was founded, by an act of the British Parliament 1754, which is now called Columbia College, and is said to be frequented by more than one hundred students. Nassau Hall was founded at Prince town, in New-Jersey, the students being estimated at eighty. In 1782 another foundation, called Washington college, arose at Chestertown in Maryland. Even in Tennessee there is a society for promoting useful knowledge, which is far more laudable than those established in some countries for promoting useless knowledge; and there is also an academy with many grammar schools. Yale college, in Connecticut, was founded in 1717, and rebuilt in 1750; maintaining about 130 students*. In Pennsylvania there are several literary societies, particularly the American Philosophical Society, formed in 1769; and which has already published five volumes of its transactions. These volumes contain many curious and important papers, on a great variety of subjects. The American Linnæan society, for the promotion of natural history, was established at Philadelphia in 1803. Much important information may be expected from the zeal and labours of this infant institution. The science of medicine is in a very flourishing state, in many parts of the United States, particularly in Philadelphia, where lectures upon all the branches of this science are delivered by professors under the direction of a board of trustees, in the university of Pennsylvania. This university was founded at Phiadelphia during the war, and being since united with the college, has become a respectable seat of learning. In this state there are also Dickinson college, and Franklin college. Harward university, in the state of Massachusetta wss founded in 1638, and is generally regarded as the chief foundation in North America. The university of Georgia is at Louisville, and some other provinces boast of other colleges, or rather considerable academies. These detached institutions seem better calculated for the promotion of knowledge, than one or two great universities. In New Hampshire Dartmouth college was founded in 1769, for the instruction of the savages, but has since become an ample endowment for the youth of the northern states.

* Morse, 358.

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CITIES. With regard to size and consequence the cities of the United States must be thus arranged: Philadelphia, New York, Boston, Baltimore, Charleston; but in relation to commerce, New York precedes Philadelphia, and Charleston ranks above Baltimore. Before proceeding to a brief account of these cities, it will be proper to describe that of Washington, the intended metropolis of the United States.

WASHINGTON. "The city of Washington, in the territory of Columbia, was ceded by the states of Virginia and Maryland to the United States, and by them established as the seat of their government, after the year 1800. This city, which is now building, stands at the junction of the rivers Potomac and the eastern branches, lat. 38° 53′ north, extending nearly four miles up each, and including a tract of territory exceeded in point of convenience, salubrity and beauty, by none in America, for although the land in general appears level, yet by gentle and gradual swellings a variety of elegant prospects is produced, and a sufficient descent formed for conveying off the water occasioned by rain. Within the limits of the city are a great number of excellent springs; and by digging wells water of the best quality may readily be had. Besides the never failing streams that now run through that territory may also be collected for the use of the city. The waters of Reedy branch, and of Tiber creek, may be conveyed to the President's house. The source of Tiber creek is elevated about 236 feet above the level of the tide. The perpendicular height of the ground on which the capitol is to stand, is seventy-eight feet above the level of the tide in Tiber creek; the water of Tiber creek may therefore be conveyed to the capitol, and after watering that part of the city may be destined to other useful purposes.

"The eastern branch is one of the safest and most commodious harbours in America, being sufficiently deep for the largest ships* for about four miles above its mouth, while the channel lies close along the bank adjoining the city, and affords a large and convenient harbour. The Potomac, although only navigable for small craft, for a considerable distance from its banks next to the city, (excepting about half a mile above the junction of the rivers,) will nevertheless afford a capacious summer harbour, as an immense number of ships may ride in the great channel opposite to, and below the city.

"The situation of this metropolis is upon the great post road, equidistant from the northern and southern extremities of the union, and in the midst of a commercial territory probably the richest, and nearly so from the Atlantic and Pittsburg, upon the best navigation commanding the most extensive internal resources of any in America. It has therefore many advantages to recommend it, as an eligible place for the permanent seat of the general government; and as it is likely to be speedily built, and otherwise improved by the public spirited enterprize of the people of the United States, and even by foreigners, it may be expected to grow up with a degree of rapidity hitherto unparalleled in the annals of cities.

"The plan of this city appears to contain some important improvements upon that of the best planned cities in the world, combining in

* There is but about eighteen feet water on the bar, and at the time of ebb-tides, the frigates sink one or two feet into the mud. B.

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a remarkable degree convenience, regularity, elegance of prospect, and a free circulation of air. The positions for the different public edifices, and for the several squares, and areas of different shapes, as they are laid down, were first determined on the most advantageous ground, commanding the most extensive prospects, and from their situation susceptible of such improvements as either use or ornament may hereafter require. The Capitol will be situated on a most beautiful eminence, commanding a complete view of every part of the city, and of a considerable part of the country around. The President's house will stand on a rising ground, posseessing a delightful water prospect, together with a commanding view of the Capitol, and of the most material parts of the city. Lines or avenues of direct communication have been devised, to connect the most distant and important objects. These transverse avenues or diagonal streets are laid out on the most advantageous ground for prospect and convenience; and are calculated not only to produce a variety of charming prospects, but greatly to facilitate the communication throughout the city. North and south lines intersected by others running due east and west, make the distribution of the city into streets, squares, &c. and those lines have been so combined as to meet at certain given points with the divergent avenues, so as to form on the spaces first determined the different squares or areas. The grand avenues, and such streets as lead immediately to public places, are from 130 to 160 feet wide, and may be conveniently divided into footways, a walk planted with trees on each side, and a paved way for carriages. The other streets are from 90 to 110 feet wide.

"In order to execute this plan, Mr. Ellicott drew a meridional line, by celestial observation, which passes through the area intended for the Capitol. This line he crossed by another, running due east and west, which passes through the same area. These lines were accurately measured, and made the bases on which the whole plan was executed. He ran all the lines by a transit instrument and determined the acute angles by actual measurement leaving nothing to the uncertainty of the compass."*

Mr. Weld observes a great defect in the plan, the want of a grand and extensive quay, the shores being crowded with small wooden wharfs and warehouses; but these are only temporary, and no lasting edifice is to be permitted except in brick or stone.† In the Capitol the national councils are to assemble; and so grand is the plan, that the expense is estimated at a million of dollars, or 225,000 pounds sterling. The banks of the Potomac present inexhaustible quarries of excellent free-stone, as hard as that of Portland; and at no great distance are found slate, paving-stone, and lime-stone, and excellent coal.

PHILADELPHIA. The city of Philadelphia is supposed to contain about 80,000 inhabitants, and was designed by William Penn, the first proprietor and founder of the colony called Pennsylvania, in 1683. The form is an oblong square, extending about two miles east and west between the rivers Delaware and Schuylkill, or rather on the western bank of the former river. This city is neatly con

* Mors 468. † This regulation has since been rescinded.

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structed, the chief streets being one hundred feet in breadth, paved with pebbles, and the foot paths with brick. They are chiefly in a strait line, a form not approved by lovers of the picturesque; but in a city the chief objects are convenience, and a short access from one part to another. The charter of incorporation, granted by Penn in 1701, was singularly aristocratic, being copied from that of Bristol in England; but the general assembly of the province, in 1789, formed a liberal plan; and the government of the city, the prisons, &c. may now be regarded as surpassing any in the world. There are many humane institutions, and a public library, which contains above ten thousand volumes, among which are many rare and valuable books, in various languages. The tolerant character of the Quakers differed widely from that of the fanatic settlers in New England: at present they do not exceed one fourth part of the inhabitants: and their aversion to the elegancies and luxuries of life is overcome by the wishes of the majority. Gay equipages are not rare in the streets of Philadelphia, and the theatre is much frequented. The expense of labour and domestic economy was, about six or seven years ago, considered as higher in Philadelphia, and in most parts of the United States, than in England; but at present it is probably far lower.*

New York. The capital of the state of the same name is situated on a promontory at the mouth of Hudson river, a noble and picturesque stream. The number of inhabitants in 1790 was 33,131, this city being about two miles in length and four in circumference. It was greatly injured during the war, but has since been enlarged and improved. The chief edifice is the Federal Hall, a neat building of Grecian architecture, in which Washington was installed president of the United States. In commerce New York is considered as the chief city in North America, the harbour admitting ships of any burden. It is also the gayest city, and is thought to exceed Charleston in South Carolina, which last is however a rival in hospitality and social pleasures. In public institutions for the promotion of education, the arts, sciences, &c. it is certainly inferior to Philadelphia.

Boston. Boston the capital of the state of Massachusetts, was regarded by Mr. Burke as the chief city in North America; and he says that from Christmas 1747 to Christmas 1748, five hundred vessels cleared from this port only, for foreign trade, and 430 were entered inwards; not to mention coasting and fishing vessels, supposed to equal the others in number.† He considers the people of New England as the Dutch of America, being carriers for all the colonies of North America and the West Indies. The trade of Boston has however since declined; though still far from inconsiderable,

* Mr. Pinkerton says, "the general use of salted provision (in Philadelphia) must be injurious to health: and it is inconceivable (he adds) why this custom should have continued so long." There seems to be little foundation for these observations. The inhabitants of Philadelphia are not remarkable for the consumption of salted provisions, and it appears pretty certain that the use of a portion of well salted meat, during the hot summer months, is very conducive to health. B.

† Account of the European settlement in America, 4th edit. 1765. vol ii p. 172.

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This city is supposed to contain about 20,000 inhabitants. The harbour on a large bay is excellent, and capacious enough to receive five hundred ships at anchor; with a narrow entrance, commanded by a castle. There is a pier about 600 yards in length; and the harbour is interspersed with about forty islands, which afford excellent grain and pasturage. This city also suffered considerably by the war, but has been improved, and the public buildings are, in that part of the world, deemed elegant. Boston does not exceed two miles in length, being of a circular form; and on the west is the mall or public walk, planted with rows of trees. On the same side is Beacon-hill, on which a monument has been erected, commemorating some of the most important events of the war. The fanatical spirit of this city has entirely disappeared; and Mr. Burke observes, after narrating the witchcraft delusion, 1692, in which so many innocent people suffered by the bigotry of two clergymen, "that the people there are now grown somewhat like the rest of mankind in their manners, and have much abated of their persecuting spirit." This city is even already ranked by some amongst the most pleasing and sociable in the United States, and is the residence of many enlightened and worthy men.

Baltimore. Baltimore in Maryland stands on the north side of the river Patapsco, which may rather be regarded as a creek of the great bay of Chesapeak, and has rapidly risen to its present consequence. The situation is rather low, but it has been rendered by art tolerably salubrious. In 1790 the number of inhabitants was 13,503.

Charleston. Charleston in South Carolina is situated on a point of land at the confluence of Ashley and Cooper rivers, which are large and navigable, and open into a capacious estuary. The situation is esteemed tolerably healthy, though low, being refreshed by the sea breezes. In 1791 there were 16,359 inhabitants, of whom 7684 were slaves. This city is celebrated for easy and social manners.

Such are the principal cities of the United States; and to enumerate the others would be alike tedious and temporary; as, amidst new foundations and improvements, great changes often happen in their relative consequence.

Edifices. The chief edifices are commonly the halls in which the legislatures of each state assemble. The Capitol, and the house of the President, in the new metropolis, designed, as well as the plan of the city, by L'Enfant are considered as edifices of the most splendid promise. Many of the churches in Philadelphia, New York, Boston, and other cities and towns, are large and commodious, and even elegant edifices.

Inland Navigation. Considerable progress has already been made in opening canals for inland navigation, though the numerous great rivers have been found sufficient for the purposes of general and extensive intercourse. Indeed no country in the world can boast of superior means of inland commerce by the great river Missisippi, and many other navigable streams, not to mention the lakes of prodigious extent. In Pennsylvania, several canals have been projected, but most of them have been laid aside. A very useful one, however, has been completed in this state. This is the Connewaga-canal, by

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which the inconveniences of the falls of that name, in the Susquehanna, are avoided. An important canal upon the Potomac river has also been completed. The Santee canal in South Carolina is thought to be equal to any work of this kind, within the United States. It was begun in 1792, and completed in 1800, at the expense of not less than 150,000*l.* sterling. It is thirty-five feet wide at the top, sloping down to a width of twenty feet at the bottom, and is calculated to contain a depth of four feet water, capable of passing boats of twenty-two tons*. Many other canals are contemplated in different parts of the union, particularly one between the great bays of Chesapeak and Delaware. Within a few years, considerable improvements have been made in the roads, particularly in Pennsylvania, where excellent turnpikes, little inferior to many of those in Britain, have been completed. Many bridges have also been erected, some of them, particularly in the New England states, of great extent. A fine bridge is now† erecting over the river Schuylkill, near Philadelphia. In short, improvements of every kind are rapidly advancing in almost every part of the United States.

COMMERCE. The commerce of the United States is annually more and more divided among foreign nations, as America becomes able, by increased capital, to import raw materials, to manufacture at home, to embark in the cash business of India and China, and to purchase for money on the continent of Europe, where her credits have not been established by acquaintance and habit. Hence we find, that instead of the ancient British monopoly, the scale of *European* demand from the United States was in 1802, nearly as follows:

Great Britain and Ireland received of our exports about	16,000,000
France	7,600,000
The Baltic powers	873,600
Hamburg, Bremen, &c.	6,200,000
The Dutch European dominions	5,000,000
Spain	2,920,000
Portugal and her wine islands	2,100,000
The countries beyond the Cape of Good Hope may be added at	1,000,000
The British, Spanish, and French West India trades, were each about 6,500,000 dollars, equal in the the whole to	1,950,000

Much of the imports into Great Britain consisted of articles destined to go from her ports to other markets, for which that country was only a stepping-stone, and much of the excess was owing to our great importations from thence.

From this statement it will be perceived, that the export trade of America is not centered in the ports of any nation. It amounted in 1789 to about 18,000,000, and in 1799, 1800, 1801, 1802, fluctuated from 68,000,000 to 93,00,0000.

* Drayton's View of South Carolina, &c. p. 154, 155, &c. B.
† March 1804. B.

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The American importation of manufactures, from the British dominions in Europe and Asia, were little less than 27,000,000 of dollars in the year 1802, and the imported manufactures, from all other countries, were probably about 10,000,000 of dollars. The wines, teas, salt, distilled spirits and other unmanufactured produce, from places not British, amounted probably to 30,000,000 of dollars, and the like unmanufactured articles from the British dominions were probably worth 3,000,000 of dollars. The coarse and fine manufactures of the United States (exclusively of all kinds of meal and of boards, staves, and similar articles of wood) may be safely computed at more than 40,000,000 of dollars. The China trade is considerable, and if cotton wool should be used as an export to Canton, must be greatly increased. The surplus of our cotton in 1803, beyond domestic consumption, is computed at 30,000,000 pounds weight. The returns of exports, imports, tonnage, fisheries, and coasters, display, in authentic form, the progress and actual condition of the American trade in all its branches. They are however rather evidences of the capacities of the country than of the courses, which its trade will in future take; for the revolutions in the colonies, commerce, and laws of European nations occasion the United States to seek new channels of vent and other sources of supply. The improvements of American manufactures too, are constantly diminishing our exportation of raw materials, increasing the importations of such articles and restraining exportations of provisions and drinks, while they prevent an increase of the importations of foreign manufactures proportionate to the increasing population.

In America the balance of commerce appears to be against the country, as the imports are greater than the exports. But this evidence, though it may be deemed positive in other countries is not so in the United States. The great number of their ships, and the distance between their ports and those of foreign nations, occasion them to receive abroad a vast sum *in freight*. This does not appear in their exports, but is returned in useful goods. The emigrants from the foreign world to America, bring hither much property, which is never to be remitted or returned, because the importers make their home in some one of the states. It is highly important to add, that importations of 1000 dollars value each, in mill stones, bolting cloths, stills and worms, mill saws, wire, nails, hinges, locks, bolts and glass, (for example) enable the Americans to bring into active use, and into a productive state, tracts of five hundred acres of land, with seats for saw mills, flour mills, snuff mills, distilleries and with good soils, which land in the year 1802 produced nothing, but in 1804 may yield a quadruple interest (for its whole value as improved) in mill tolls, rents, timber, fossils, and crops. The profit of this course of things is proved by this fact, that although in the year 1620, America did export a surplus of one hundred dollars, yet before 1801, in one year, they exported 93,000,000 of dollars, which at the high American interest of six per cent. is the interest of 1,500,000,000 of dollars; and they, at the same time, maintained with as much average comfort as any country on earth, a population of five millions and one quarter.

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MANUFACTURES. Some of the manufactures of the United States may be considered as having advanced to a mature state, and in regard to these, the ancient monopoly of Great Britain is at an end. Nor does the rivalship of her fabrics, nor those of other foreign nations, prevent a constant, great, and increasing supply from American industry and skill. Foreign manufacturers, settled in the United States daily enlarge that supply. Passing by every species of meal, boards, staves, shingles, and other simple productions of labour and mechanism, it may be fairly stated, that the United States can supply themselves with all or much of the following manufactures and fabrics: Every quality of refined sugar, pot and pearl ashes, malt liquors, distilled spirits, from fruit, grain and molasses, starch, wafers, glue, soap, candles, shoes, boots, many gloves, fine, common and coarse hats, wrought silver, and gold, including much plated ware, carriages for pleasure and for draught, ships and boats, coopers' wares of every kind, saddlery, harness, and trunks, every kind of cabinet ware; lead, brass, pewter, and copper wares, and those of tin, and tin plated; many printed books, blank books, book bindings, much paper hanging and sheathing, printing and writing paper, cables, cordage, twine, and packthread, gunpowder, snuff, and manufactured tobacco, bricks, tiles, pottery, some slate, wrought marble and stone for buildings, coarse manufactures of linen, cotton and wool, and some middling and a few of fine qualities, some hosiery, household manufactures of various qualities and descriptions, a considerable quantity and variety of engravings, carved and gilt works, bolts, spikes, and many nails; chemical and galenical preparations, cannon, musquets, rifles, pistols, bayonets, swords, clocks, and many watches, &c. &c. After repeated estimates in various forms and on different principles, it is held by persons of information and experience, that the value of all the commodities manufactured in the United States (those from meal and wood not included) is considerably more than that of all the exported American products and manufactures. The progress of this important branch of the national industry is equal to every reasonable expectation. With respect to the finer manufactures many of them are in their infancy, and many of them are not yet commenced. Not a few will probably be long delayed. Those branches however, which depend on *labour-saving* machinery, have lately attracted the utmost regard, and will doubtless advance with rapidity within a few years. No country values more than America all the interesting branches of *household* manufactures, and as the females weave in several of the states (and not the men) few countries pursue *family* manufactures to so great an extent. The preparation of the manufactures of the dairy, which may be included under this head, has wonderfully increased within a few years. The butter for example, exported in the year 1792, was only 11,761 firkins, weighing less than 700,000 pounds, and the cheese in the same year, 125,925 pounds. In 1802 the butter was 2,361,576 pounds, and the cheese was 1,332,224 pounds, although the consumption of the latter is annually increasing. It is upon the whole manifest, that the acquisition of foreign artists, the ingenuity of native Americans, the discovery of chemical secrets, the introduction

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of labour-saving machinery, and above all, the vast abundance and perhaps the redundancy of cotton wool, must annually increase the importance of American manufactures. The exportation within seven years has increased from a few hundred thousand pounds weight, to 30,000,000 in a single year. Cotton wool everywhere in America, presents the strongest temptations to the thrifty housewife, and to the regular manufacturer.

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CHAPTER IV.

NATURAL GEOGRAPHY.

CLIMATE AND SEASONS.—FACE OF THE COUNTRY.—SOIL AND AGRICULTURE.—RIVERS.—LAKES.—MOUNTAINS.—SWAMPS.—BOTANY.—ZOOLOGY.—MINERALOGY.—MINERAL WATERS.—NATURAL CURIOSITIES.

CLIMATE. THE climate of the United territories, as already mentioned, is chiefly remarkable for sudden transitions from heat to cold, and the contrary. The wind from the north-west is violently cold, as it passes a wide expanse of the frozen continent. In the plains on the east of the Apalachian chain, the summer heats are often immoderate. Towards the mountains the climate is salutary even in the southern states, as is evinced by the bloom of the damsels in the back settlements of Virginia, Carolina, &c. In the northern states the winter is longer and more severe than in England, but the summer heat more intense. A north-east wind commonly attends rain, while on the west side of the Apalachian mountains, a south-west has that effect. In the maritime part of Georgia, the winter is very mild, snow being seldom seen, and the east wind is there the warmest.

This excessive heat of the plains may, perhaps, be regarded as one principal cause* of that fatal malady, called the yellow fever, which appeared at Philadelphia in 1793, and has since too frequently repeated its ravages in that and other cities of the union. Several medical men have treated this subject with considerable care and ability, but do not seem to have examined, with all the requisite attention, whether any similar disease was before known on the continent. Alzate, in his fugitive remarks on the natural history of Mexico, has mentioned an epidemical distemper, called in the Mexican language *matlazahuali*, but at Vera Cruz, Carthagena, and other places, known by the name of the black vomit, which is the chief scourge of the kingdom of Mexico†. In 1736 and 1737 it swept away above one third of the inhabitants of the capital; and in 1761 and 1762 (in which latter year it visited Philadelphia), it almost depopulated the kingdom. Alzate, on no very solid theory, thinks that this disorder proceeds from the bile mixing with the blood,

* It is still a very controverted point, whether the yellow fever be a *native* disease of the United States. But it is on all hands allowed, that the air of our large commercial towns, during the hotter part of the summer and autumn, is extremely favourable to the spread of the disease. B.

† D'Autroche, Voyage to California, p. 79. Ulloa, liv. iv. c. vi. says that the black vomit was not known till 1740, and is thought to have been imported by the galleons from Manilla.

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the patient often bleeding at the nose and mouth; and a relapse is extremely dangerous. He dissuades purgatives and bleeding, as when used for other disorders they superinduce the *matlazahualt*, which in Mexico always begun among the Indians, and was chiefly confined to them.*

Seasons. The seasons in the United States generally correspond with those in Europe, but not with the equality to be expected on a continent; as, even during the summer heats, single days will occur which require the warmth of a fire. The latitude of Labrador corresponds with that of Stockholm, and that of Canada with France, but what a wide difference in the temperature! Even the estuary of the Delaware is generally frozen for six weeks every winter. It is believed, however, that the western coast of North America is warmer than the eastern. The numerous forests, and wide expanses of fresh water, perhaps contribute to this comparative coldness of the climate, which may gradually yield to the progress of population and industry.

Face of the Country. The face of these extensive territories is not so minutely diversified as might have been expected, the features of nature being here on a larger and more uniform scale than in Europe. Nor are there any scenes of classical or historical reminiscence, which transport the mind to remote centuries, and impart a crowd of relative ideas. The abundance of timber, and the diversity of the foliage, contribute greatly to enrich the landscape; which however is less ennobled by lofty mountains than by rivers of great magnitude; and is frequently injured by the barren aspect of large fields, which have been exhausted by the culture of tobacco. The northern states called New England are generally hilly, as they approach the skirts of the Apalachian chain, which has by no unfit similitude been called the spine of the united territory. The vales in these northern regions are thickly clothed with wood, and often pervaded by considerable rivers; and many romantic cascades are formed by rivulets falling from the rocks, while towards the shore the land is level and sandy. In Virginia, a central state, the Blue Mountains, and other ridges, add great charms and variety to the prospect, which is further enlivened by many beautiful plants and birds, particularly the humming bird, (trochilus colubris) sucking the honey of various flowers, and rapidly glancing in the sun its indescribable hues of green, purple, and gold. Here a plain from 150 to 200 miles in breadth, reaching from the mountains to the sea, is studded with the villas of rich proprietors, the ancient hospitable country gentlemen of the United States. Similar levels appear in the Carolinas and Georgia. Beyond the Apalachian ridges extends another rich plain of amazing size, pervaded

* "May not this disorder (says Mr. Pinkerton) "be as much allied with the yellow fever as the black and yellow jaundice?" The Spanish physicians (he continues) "might at any rate be consulted, as they have long been accustomed to the American maladies." There is little room to doubt, that the yellow fever, as it has appeared in Philadelphia, &c. is the same disease of which Alzate has given an account. It is to be feared, that a reference to the Spanish physicians would not be of much importance in a practical point of view. The British physicians and those of the United States have devoted much more attention to the subject. B.

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by the muddy waves of the Missisippi. In Kentucky the surface is agreeably waved with gentle swells, reposing on a vast bed of limestone; and a track along the Ohio is broken into small hills and narrow vales.

Soil. The soil, though of various descriptions, is generally fertile, often, on the east of the Blue Mountains, a rich brown loamy earth, sometimes a yellowish clay, which becomes more and more sandy towards the sea. Sometimes there are considerable marshes, and what are called salt meadows, and spots called barrens, which, even in the original forests, are found to be bare of trees for a considerable space.* On the west of the Apalachian chain the soil is also generally excellent; and in Kentucky some spots are deemed too rich for wheat, but the product may amount to sixty bushels an acre: and about six feet below the surface there is commonly a bed of limestone. The vales in the northern states are also very productive.

Agriculture. In agriculture the Americans are well skilled, and are eager to adopt the advantages of English experience. The great Washington was himself an excellent practical farmer; and it is computed that at least three parts in four of the inhabitants of the United States are employed in agriculture. This free and vigorous yeomanry may well be regarded as the chief glory of any state; and commerce will import sufficient opulence to enable them to promote every possible improvement. Agriculture particularly flourishes in New England, New York, and Pennsylvania. But it is making rapid advances in all the other states; and even in some of the poorer counties of those states. The more general use of gypsum, as a condiment or manure, has been of the utmost importance to the country. It is to be wished, however that more attention were paid to the use of the carbonates of lime, such as the common limestone, which is so abundant in many parts of the United States. The practice of land-jobbing, and other tendencies to monopoly, ought carefully to be repressed: such however is the progress of agriculture, that the states are enabled almost yearly, to increase the exportation of grain and flour. In 1786 Pennsylvania exported 150,000 barrels of flour; in 1789 no less than 369,618 barrels. Among the numerous products are wheat, rye, barley, buck wheat, oats, beans, pease, and maize, the last a native grain. In Virginia some rice is cultivated, and is found to succeed well on the banks of the Ohio. The German spelt (triticum spelta) a valuable product is also sown in Pennsylvania; and in several states hemp and flax are considerable objects of agriculture. The culture of turnips, and some other vegetables common on English farms, seems as yet to draw too little attention; but many cultivated grasses are sown, and in different parts of the union there are lucern, burnet, red, white, and yellow clover, &c. In Pennsylvania great attention is paid to the cultivation of clover.†

* Pine barrens produce principally different species of pines and other cone-bearing trees. These barrens abound in the gaultheria procumbens, or mountain-tea, and other small vegetables. B.

† Particularly the red clover (trifolium pratense). This is not only sown for the purpose of a pasture grass and for hay, but also as a manure for land. With this latter view, it is much attended to in Pennsylvania. In the maritime parts of Virginia, they sow with the same intention, a native species of cassia, called the magotty bay-bean, patridge-pea, &c. B.

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That invaluable plant the potato is a native of America. Several kinds of melon and cucumber are cultivated. Hops (a native plant) are also cultivated: and it is almost unnecessary to add tobacco, a well known product of Virginia, which opulent state bears a considerable resemblance in culture and manners to some of the West Indian settlements. Orchards are favourite objects; and cyder is a common beverage in the northern and middle states. The excellent Newtown apple grows near New York, and the crab-apple (pyrus coronaria) is a native of the country. Peaches are greatly cultivated in Virginia, where the peach brandy is noted;* and there are also excellent apricots and nectarines. Strawberries, of a very superior quality, grow wild in many parts of the union, where they purple extensive fields.

Rivers. The chief rivers of the United States have already been described in the brief general view of North America; but a few may be here mentioned of a more confined course, and more particularly belonging to the United territory. The Missisippi, besides the celebrated Ohio, pervading the centre of the United territory from east to west, receives many other considerable streams, among which is the Illinois, which waters extensive and fertile meadows. More northern streams, flowing into the Missisippi are the Uisconsin, the Chipawy, and the river St. Croix. The noble stream of the Ohio receives from the north the Muskingum, the Sioto, Great and Little Miami, and the Wabash: from the south the Great Kennaway, the Kentucky, the Green River, and above all the Cumberland and the Tennessee; while the country on the west of Georgia is watered by several streams which join the gulf of Mexico.

Among the numerous rivers which flow, on the east, into the Atlantic, may be mentioned the limitary stream of St. Croix, the Penabscot, the Kennebec, the Saco, the Merimac, the Connecticut, a long and distinguished stream, which gives name to the state, but which yields in length and grandeur to the Hudson river, which rising from several lakes in the northern parts of New York, flows into the ocean near the flourishing city of that name. The river Delaware, which washes Philadelphia, being joined by numerous streams, is more remarkable for its width than for the length of its course. The Susquehanna is distinguished by both these attributes, and after a long and circuitous progress forms the chief contributary stream to the bay of Chesapeak; which also receives the Potomac, the Rappahannoc, York river, and James River. The Potomac is not only distinguished as the seat of the new capital, but for its irruption through the Blue Ridge of the Apalachian Mountains, being first joined by the Shenandoa, a considerable river from the south. The range however consists of broken rocks, and the scene is thought to yield greatly in sublimity to the passage of the Lauricocha or false Maranon, through the Andes, worn into perpendicular walls of stupendous height and length. Further to the south the chief rivers flow west into the Ohio and

* In many parts of the United States, the peach-trees are greatly injured by the *larva* of a peculiar insect. But peaches, not inferior to the finest fruit of this kind in Europe, abound in some parts of New York, Pennsylvania, &c. B.

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Missisippi. But the Black water and Staunton join the Roanok inlet: and Pamlico sound receives a river of the same name. That of cape Fear, the Pedee, the Santee, the Savannah, and the Altamaha of Georgia, close the list of the chief rivers of the United States.

LAKES. Besides the great lakes which form the northern boundary, and which have been already mentioned in the general description of North America, there are some considerable lakes in the northern parts of the United territory. Those on the west have been little explored. The small lakes called Cedar, Little Winnipeg, and Leech, supply some of the principal sources of the Missisippi.

CHAMPLAIN. On the east the most important lake is that of Champlain, rather resembling a wide river, which flows into that of St. Lawrence, and supplies an easy communication with Canada. The Champlain is the boundary between the states of New York and Vermont, being in length about seventy-five geographical miles, while the breadth seldom exceeds four or five; and it terminates in the broad river called Chambly or Richlieu, which falls within the limits of Canada. Lake George, at the southern extremity of Champlain, approaches within a few miles of the Hudson river, so that a canal might be opened at no great expense. Besides many small lakes south-west of the Champlain, there are several other lakes in the same direction, and also in the state of New-York, as the Oneida, the Cayuga, the Senneka, the Cannendagua, &c. These, though not very considerable in magnitude, are of great importance in facilitating the conveyance of produce through an immense extent of territory.

MOUNTAINS. The chief mountains have been likewise described in the general view of North America. The White and Green mountains in the northern states, and the Land's Height, which bounds the district of Maine, may be regarded as elongations of the Apalachian chain, to which also belong the Savage and Bald mountains, and the Allegheny, so called from another name of the river Ohio,* (sometimes extended to the whole Apalachian,) with many other local denominations, the Blue Mountains being the most general term for the exterior considerable ridge towards the ocean.†

FORESTS. Aboriginal forests are so numerous throughout the United territory, that none seem to be particularly distinguished. There do not appear to exist, on the whole continent of America, any of those sandy deserts which are so remarkable in Asia and Africa.

* It is believed that the name Allegheny has never been extended to any part of the Ohio below the scite of Pittsburg, or Fort Pitt, where the great stream well known in the United States by the name of Allegheny, meets with the Monongahela, from the south. The name Ohio (perhaps more properly Hohio) is bestowed upon the river immediately after their junction. B.

† The component parts of the White Mountains seem to be slate, petrosilex, and grey quartz, or perhaps granite See Morse, p. 293. The Blue Mountains are sometimes called the South mountains, while the Apalachian chain is called the North mountains, and, from an Indian term, the Endless mountains. It appears from repeated passages of Kalm that they chiefly consist of what may be called calcaleous granite, or mingled limestone, quartz, and mica. The river Hudson cuts directly across the high ridge of mountains. Kalm, p. 77.

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There is, on the contrary, an exuberance of water even in some of the most torrid regions. Even the volcanos in South America often pour down torrents of water and mud, and nowhere occur the sandy ruins of plains, after the fertile soil has been totally lost, or the rocky skeletons of ancient mountains.

Dismal Swamp. The large tract in the eastern part of Virginia and North Carolina, called the Dismal Swamp, occupies about 150,000 acres; but it is entirely covered with trees, juniper, and cypress on the more moist parts, and on the drier white and red oaks, and a variety* of pines. These trees attain a prodigious size; and among them there is often thick brushwood, so as to render the swamp impervious, while other forests in North America are frequently free from under-wood. Cane reeds (different species of arundo) and tall rich grass, soon fatten the cattle of the vicinity, which are taught to return to the farms of their own accord. In this swampy forest, bears, wolves, deer, and other wild animals abound; and stories (for which, perhaps, there is no foundation) are told of children having been lost, who have been seen, after many years, in a wild state of nature. Some parts are so dry as to bear a horse, while some are overflowed, and others so miry that a man would sink up to the neck. A canal has been led through it; and even in the dry parts water of the colour of brandy, as is supposed from the roots of the junipers, gushed in the depth of three feet. In the northern part the timber supplies an article of trade, while in the southern rice is found to prosper; and in the neighbourhood none of these diseases are known which haunt other marshy situations.†

Swamps. Georgia presents a singular marsh, or in the wet season a lake, called Ekansanoko, by others Ouaquafenoga,‡ in the south-east extremity of the state. This marshy lake is about 300 miles in circumference, and contains several large and fertile isles, one of which is represented by the Creek Indians as a kind of paradise, inhabited by a peculiar race, whose women are incomparably beautiful, and are called by them daughters of the sun. These islanders are said to be a remnant of an ancient tribe, nearly exterminated by the Creeks.

Botany. A country that experiences on one frontier the severity of the Canadian winters, and on the other basks in the full radiance of

* Weld, 179.

† On the north-east of the Chesapeak is another of great extent called Cedar Swamp; and many other large swamps occur in the southern states.

‡ Mr. Pinkerton objects to "such long and barbarous appellatives, derived from savages who have a word of fourteen syllables to express the number *three*." He says, "they ought to be abbreviated, and reduced to a fixed orthography, by some learned society." It will not be denied, that some of the Indian appellatives of the rivers, mountains, &c. of their country, are very long, and sometimes difficult of pronunciation. Many others, however, are sufficiently short; many of them are soft-sounding, or beautiful, and all of them, it is believed, extremely appropriate and significant. We could not wish for shorter appellatives than the following, viz. Ohio, Missouri, and Potomac. Wherever we have become acquainted with the precise import of the Indian names, we readily acknowledge the peculiar propriety of them. Much attention has been paid to this subject, in the United States; and a gentleman, who has, for many years, been engaged in inquiries concerning the history, manners, languages, &c. of the Indians, is preparing for the public, "a memoir on the Indian geography of the United States." B.

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the West-Indian summers, may naturally be expected to contain no small variety of native plants. So numerous and important indeed are they, as to render it impossible in a work not devoted particularly to the subject to notice them as they deserve; we must therefore be contented with the selection of such alone as, from their utility and beauty have the strongest claim to our attention.

The botany of these states, including the Floridas, or, in other words, of the whole region extending eastward from the Missisippi to the ocean, and southward from the river St. Lawrence with its lakes to the gulf of Mexico, may be divided into those vegetables which are common to the whole country, and those that occupy only particular parts.

Some of the most generally diffused species among the timber trees are the willow leaved oak (quercus phellos) growing in the swamps: the chestnut oak (q. prinos), which in the southern states attains an enormous size, and is almost as valuable for its sweet farinaceous acorns as for its wood; the white oak; the red and the black. Next to these in rank are two kinds of walnut, the black, and the white or the hickory, esteemed for its oily nuts. The chestnut and beech of America appear to be specifically distinct from those of the old world. The tulip tree and sassafras laurel, more impatient of cold than the preceding, appear as shrubs on the Canadian borders, rise into trees in the midland states, and on the warm banks of the Altahama attain the full perfection of stateliness and beauty. The sugar maple, on the contrary, is seen only on the northern sides of the hills in the southern states, and increases both in size and frequency in the more northern climes of New York and New England. The sweet gum tree (liquidambar styraciflua), the iron wood (carpinus ostrya), the nettle tree (celtis occidentalis), the American elm, the black poplar, and the taccamahacca, appear in almost every state of the union wherever the soil is suitable, without being much affected by variety of climate. The light sandy tracts, both wet and dry, are principally inhabited by the important and useful family of pines; of these the chief species are the Pennsylvania fir, the common and the hemlock spruce fir; the black, the white, and the Weymouth pine; and the larch: nearly allied to which are the arbor vitæ, and the juniperus virginiana, the red cedar of America. The smaller trees and shrubs that are dispersed through different parts of the United States, among a multitude of others, consist of the following: different species of kalmia, rhododendron, andromeda, vaccinium, laurus, the horse-sugar (hopea tinctoria), the beautiful franklinia, the fringe tree (chionanthus), the halesia, dirca, and various species of sumach.*

Such of the common herbaceous plants and low shrubs as are best known to the generality of readers from their introduction into the gardens of Great Britain are the collinsonia, used by the Indians against the bite of the rattlesnake, the dodecatheon meadia, several gay species

* Mr. Pinkerton mentions the following as some of the "smaller trees and shrubs," of the United States, viz. the red maple (acer rubrum), the red mulberry (morus rubra), the persimmon plumb (diospyros Virginiana), the white-flowering locust (robinia pseud-acacia), and the honey-locust (gleditsia triacantha). All these, however, are trees of considerable magnitude. B.

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of phlox, the Pennsylvania lily and the golden martagon, the biennial oenothera, with many species of aster, solidago, monarda, and rudbeckia.

The mountainous ridges are not sufficiently high to be rich in the most elevated alpine plants; their climate however is sensibly cooler than that of the plains, on which account those of the south are inhabited by the vegetables of Pennsylvania and the northern states, while the highlands of these abound in the plants of Canada. Some of the higher ridges of mountains abound in various species of filices, or ferns; one of the most common and beautiful of which is the American maidenhair (adiantum pedatum). The sweet fern (comptonia asplenifolia), the mountain-tea (gaultheria procumbens), the partridge berry, (mitchella repens), the oil nut or elk nut (pyrularia pubera of Michaux) are also mountain vegetables.

But the glories of the American flora are principally confined to Virginia and the southern states; it is here that the unfading verdure of the wide savannas, the solemn magnificence of the primeval forests, and the wild exuberance of the steaming swamps, offer to the astonished admiration of the botanist every thing that by colour, by fragrance, and by form, can delight the senses and fix the attention.

Among the vegetables that inhabit the low shores of the Floridas, Georgia, and South Carolina, may be distinguished the mangrove tree, the only shrubby plant that can flourish in saltwater, the fragrant and snowy-flowered pancratium of Carolina, and the splendid lobelia cardinalis. This last is a common plant in many parts of North America.

The low ridges of calcareous soil running parallel with the rivers, and rising from the level savannas into extensive lawns and swelling hills, are generally covered with open or entangled woods, except where they have been converted into tillage by the industry of the inhabitants. In these rich tracts grow the lofty palmetto, the evergreen oak, the sweet bay (laurus borbonia), the spice wood (laurus benzoin), the wide shading broom pine, and the red cedar. The strait silvery columns of the papaw fig, rising to the height of twenty feet, and crowned by a canopy of broad sinuated leaves, form a striking feature in this delicious scenery; while the golden fruit and fragrant blossoms of the orange,* here realise the ancient traditions of the groves of the Hesperides. Superior however to all these is the towering magnificence of the great magnolia: in this rich marly soil it rises above a hundred feet, with a perfectly erect trunk, supporting a shady conical head of dark green foliage: from the centre of the coronets of leaves that terminate the branches expands a large rose-shaped blossom of pure white, which is succeeded by a crimson cone, containing the seeds of a beautiful coral red colour, and these falling from their cells remain for several days suspended from the seed-vessel by a silky thread, six inches or more in length, so that whether in this state or in blossom it is second to none for grandeur and beauty.

The level plains by the sides of rivers, and therefore generally in a flooded state during the whole rainy season, are called savannas. The trees that grow upon them are of the aquatic kind, such as magnolia

* The orange, however, is not a native of any part of America. B.

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glauca, or beaver tree, American olive, and gordonia lasianthus, silvered over with fragrant blossoms: these are generally either single, or grouped together into small open groves, while the larger part of the meadow is overgrown with long succulent herbage, intermixed with shrubs and plants; the candleberry myrtle, with numerous species of azaleas, kalmias, andromedas, and rhododendrons, arranged by the hand of nature into thickets and shrubberies, entwined and over-arched by the crimson granadilla, or the fantastic clitoria, here display their inimitable beauties in full luxuriance. The sides of the pools and the shallow plashes are adorned by the bright cærulean flowers of the axia, the golden blossoms of the canna lutea, and the rosy tufts of the hydrangia, while the edges of the groves, and the dubious boundaries of the savannas, rising imperceptibly towards the forests, are fringed by innumerable gay varieties of the phlox, by the shrinking sensitive plant, the irritable dionæa, the glowing amaryllis atamasco, and the impenetrable ranks of the royal palmetto (yucca gloriosa).

The swamps are at all times, even in the height of summer, for the most part under water, and are distinguished from the rest of the country by the crowded stems of the cane (arundo gigantea), the light foliage of the tupelo tree (nyssa aquatica) the taccamahacca, the fringe tree, and the white cedar (cupressus disticha); this last is perhaps the most picturesque tree in all America: four or five enormous buttresses or rude pillars rise from the ground, and unite in a kind of arch at the height of about seven feet, and from this centre there springs a strait column eighty or ninety feet high, without a branch: it then divides into a flat umbrella-shaped top, covered with finely divided leaves of the most delicate green. This platform is the secure abode of the eagle and the crane; and the oily seeds contained in its cones are the favourite repast of the parroquets that are constantly fluttering around.

Hundreds more of interesting plants yet remain, and we might go on to describe with unabated pleasure the profusion of various coloured lupines and dwarf palmettos that relieve the dusky hue of the pine forests in which they live; the wild vines, the gourds, the bignonias, and other climbers that display to the sun their fruits and glowing blossoms above the summits of the tallest trees; we might describe the tent-like shade of the platanus, the regal splendour of the crimson-flowered horse-chestnut, and the humbler, less obtrusive, yet not less exquisite beauties of the media, the spigelia (Indian pink), many species of asclepias, and gaura, but these our limits will not admit; it is enough for the present purpose to have sketched some of the characteristic features in the botany of a country, the most accessible of all the warmer climates to the investigations of European science.

Zoology. The domestic zoology of the United States nearly corresponds with that of the parent country, with some few shades of difference in size and colour. Among the larger wild animals may be mentioned the bison, large herds of which used to be seen near the Missisippi, and they were once very numerous in the western parts of Virginia and Pennsylvania. The musk bull and cow only appear in the more western regions, beyond the Missisippi. Among the animals now, in all probability, lost, the mammoth deserves particular attention. The bones of this species of elephant have been discovered in many

parts of North-America; particularly in the western country, at the salines of the Ohio, on the waters of the Cumberland river, and in the state of New York. The teeth and bones of other large animals have also been found, some of the most singular of which are deposited in the museum of the American Philosophical Society, at Philadelphia. These were found in a nitrous cave, in the western parts of Virginia. They are the remains of an animal of considerable size, and, perhaps, not specifically distinct from that whose skeleton was found in the year 1796, near the banks of the river Plata, in South America. An ingenious French naturalist, Mr. Cuvier, of Paris, has rendered it highly probable, that these bones are the remains of animals, long since extinct. The moose deer are become extremely rare, and will probably in no long time be utterly extirpated, as the wolf and boar have been in Britain. The black moose deer are said to have been sometimes twelve feet in height, while the species called the grey seldom exceed the height of a horse. Both have large palmated horns, weighing thirty or forty pounds. Mr. Pennant mentions a pair that weighed fifty-six pounds, the length being thirty-two inches.* The moose deer is only a large species of the elk, and is found in the northern parts of the United States; while the reign deer inhabits the northern regions of British America. The American stag, better known by the name of elk, rather exceeds the European in size, and is seen in great numbers feeding in the rich savannas of the Missouri and Missisippi,† where there are also herds of that kind called the Virginian deer, or cervus virginianus.

In the northern states are two kinds of bears, both black; but that carnivorous animal called the ranging bear is found in all the states, as is the wolf. Several kinds of foxes are also seen: and the wolverine (ursus luscus) is a speceis of bear. The animal most dreaded is the catamount, or cat of the mountains, found in the northern and middle states, and is probably the same with the *puma* of Pennant, which is sometimes in North America called the panther. One killed in New-hampshire was six feet in length, and the tail three; but the length of the leg did not exceed twelve inches. The couger is about five feet in length, and in the southern states is called the tiger: but it is well known that the ferocious animals of the new continent are totally different from those of the old, there being neither lions, tigers, leopards, nor panthers, in the whole extent of America. A German missionary,‡ who resided twenty-two years in Paraguay, describes the tiger of that country as marked with black spots, sometimes on a whitish, sometimes on a yellowish ground; and says that as the lions of Africa far exceed those of Paraguay, so the African tigers greatly yield in size to the American; which may be just, as the royal tiger seems peculiar to Asia. But he adds that he has seen the skin of a tiger three ells and two inches in length, or equal to that of a large ox. This animal easily carries off a horse or an ox: and seems to exceed in size any Ame-

* A. Z. i. 18.

† This fine animal has been described by the name of cervus, wapiti, *wapiti* being one of its Indian names. B.

‡ Dobrizhoffer de Abiponibus, vol. i. 203. Vienna, 1784. 8vo.

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rican beast of prey admitted in the system of Buffon, whose fondness for theories is often to be lamented; and his *jaguar*, or American tiger, seems only a diminutive species.*

The lynx, the ocelot, and the margay, are smaller beasts of prey, of the cat kind. These and many other animals supply furs. The beaver is well known from the fur, and the singular formation of his cabin, built in ponds for the sake of security; but he seems to feed on the twigs of trees, and not on fish, as commonly supposed. This industrious animal is found in all the states, and is somewhat imitated by the musk rat, who likewise builds his hut in shallow streams.† The morse or sea cow, and the seal, used to frequent the northern shores; and the manati, common in South America, sometimes appears on the southern coasts; this animal, which has fore feet like hands, and a tail like a fish, while the breasts of the female resemble those of a woman, seems to be the mermaid of fable.

Among the birds there are many species of eagles, hawks, vultures, owls; and numerous sorts called by European names, though generally different in the eye of the naturalist. The bird called a turkey (meleagris gallapavo), is peculiar to America, and abounds through a great tract of country. They were brought from Mexico to Spain, and from Spain to England about 1524; the African poultry, or *meleagrides*, of more ancient authors, being Guinea fowls.‡ There are also birds which considerably resemble the partridge, ptarmigan, and quail, of Europe. The United States abound with beautiful birds, among which is the humming bird, as already mentioned, and the Virginia nightingale, (loxia cardinalis), while the wakon is said to resemble the bird of paradise:‖ and it may be conceived that vast varieties of aquatic birds crowd the numerous lakes and rivers, the largest being the wild swan, which sometimes weighs thirty-six pounds. Some species of pelican are also common.** Some of the frogs (rana ocellata, &c.) are of remarkable size; and the tortoise, or turtle, supplies a delicious food,†† while the alligator is extremely common in the southern rivers. Of serpents Mr. Morse enumerates near forty kinds found in the United territories. The black snake is the largest, being from six to ten or twelve feet in length, but is quite innocent. There are different species of rattlesnakes: all of them are characterised by a peculiar tail-apparatus, the *crepitaculum*, or rattle, from which they receive their name. They are all venemous. These animals seldom attain the length of seven feet. The

* Perhaps from Cayena: but such exported animals are always small, and zoology is not much assisted by a menagery.

† No species of monkey, whatever may have been asserted to the contrary, is a native within the limits of the United States, unless under this appellation we include the country of Louisiana, in which, it is probable, some species of this genus may be natives. B.

‡ Pennant, A. Z. i. 349.

‖ I take this bird to be the muscicapa tyrannus. Carver says, the Naudowessie Indians seem to treat it as if it was "of a superior rank to any other of the feathered race." B.

** For some account of the birds of the United States, see Fragments of the Natural History of Pennsylvania. Part I. Philadelphia: 1799. B.

†† The soft-shell turtle (testudo ferox) is peculiar to America. It is common in the southern parts of the United States. B.

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mocasin is also a poisonous species. The fish of the United States are very numerous, but have not been sufficiently examined. Not a few of them are common to the old and to the new world. Such are the salmon, cod, shad, herring, &c. But the rivers, and especially the lakes of this great tract of country, seem to possess many species that are peculiar to America. Perhaps no portion of the world is more abundant in insects than the United States. Many of these are extremely injurious to the various wild and cultivated vegetables. The Hessian-fly, the pea-bug (bruchus pisi), the insects so destructive to the peach tree, not to mention many others, appear to be indigenous animals. Beside these, not a few of the pernicious insects of Europe have been imported. Some of the native insects of the United States have, however, been applied to useful purposes. Thus the potato-fly (lytta vittata of Fabricius) is used as a substitute for cantharides, to which it is by no means inferior in strength.

MINERALOGY. The mineralogy of the United States has been much less attended to than the botany and zoology of this great tract of country. This is a circumstance much to be regretted, as it is presumed that few countries of the world will be found more interesting in a mineralogical point of view, than the countries of the union, even exclusively of the new acquired territory of Louisiana.* In the district of Maine, the foundries are supplied with bog iron ore; and there is said to be a kind of stone which yields copperas or vitrol, and sulphur. Aluminous earths are common in many of the states. Iron ore is found in great abundance in Massachusetts, where there are considerable manufactures. It is believed that every state in the union is more or less abundantly supplied with this metallic body, in different forms. But it is particularly abundant in some of the states, as in Pennsylvania, where the beds of ore appear to be inexhaustible. Copper ore is also common in Massachusetts, with black lead and aluminous slate; and asbestos is said to be found in a quary of limestone. In Rhode Island there are mines of iron and copper; and at Diamond Hill a variety of curious stones.† On the banks of the Connecticut is a lead mine, but too expensive to work; and zinc is also found, with talcs and crystals of various colours. At Philipsburg in New York is a silver mine; and lead, zinc, and manganese, with copper and coal. Gypsum, talc, asbestos, also occur in that extensive state. In New Jersey a rich copper mine was long wrought, pretended to have been discovered by a flame visible in the night, like one of the gold mines in Hungary. Copper ore is found in Pennsylvania. A lump of gold ore was found near the falls of Rappahannock, probably rolled down from its source, or that of some tributary rivulet. Gold is said to have been found in North Carolina. In Virginia there are led mines which yield from fifty to eighty

* Mr. Pinkerton asserts, that "the mineralogy of the United States will not supply an extensive theme, as few substances are found, except those which are indeed the most precious to industry, iron and coal." An attention to the present article, as it is corrected in this new edition, will serve to shew the erroneousness of the assertion. But it was not thought necessary to enter extensively into the consideration of this subject. B.

† Native copper is found on the river Tonnagan, which runs into Lake Superior. Mackenzie, xli.

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pounds from one hundred of ore: copper, manganese, and black lead are also found; and there is abundance of excellent coal on both sides of James river. Coal also abounds towards the Missisippi and Ohio; and at Pittsburg, in Pennsylvania, is of a superior quality: but this valuable mineral is chiefly worked in Virginia, where the beds seem very extensive. Limestone is rare in Virginia, on the east of the Blue ridge; but there is a vain of marble which crosses James river. On the west side of this ridge limestone abounds: indeed it constitutes the foundation of the great vallies that are comprehended between the Blue ridge and North mountain, and other extensive chains of hills. In Pennsylvania, and in Maryland, the eastern veins of limestone are more abundant. Amethysts, or violet-coloured crystals, are also found in Virginia; and an emerald is mentioned by Mr. Jefferson. Emeralds have also been discovered in the vicinity of Philadelphia. North Carolina is crossed by a long ridge of limestone, in a south-westerly direction, and some useful minerals have been discovered. In the territory south of the Ohio, what is called stone-coal is found in the Cumberland mountains, or great Laurel ridge, and there are salt springs near the upper branches of the Tennessee. In South Carolina there are appearances of gold, silver, lead, and copper, with abundance of iron ore, and quarries of free stone.* Georgia, the most southern state, is of a rich soil; but besides a bank of oyster shells, ninety miles from the sea, we are not prepared to say much on its mineralogy.†

MINERAL WATERS. There are many mineral waters, of various virtues, in different parts of the United States, and some of them not inferior to those of Bath, or Aix-la-Chapelle. In the state of Vermont, there is a remarkable sulphureous spring, which dries up in two or three years, and bursts out in another place. There are several mineral springs in Massachusetts, but little frequented, and there is another at Stafford in Connecticut. Those of Saratoga, in the state of New York, are remarkably copious, and surrounded with singular petrifactions. They are considerably frequented, as well of those of New Lebanon in the same country. New Jersey, Pennsylvania, Virginia, and several other states abound in excellent chalybeate waters, some of which are much frequented: and near Oil creek, in Pennsylvania, on the river Allegheny, there is a spring which yields petroleum, said to be useful in rheumatic complaints. Several warm springs occur in Virginia, one of them 106 degrees. These are in the county of Bath, and are much resorted to; but others, more frequented, are near the river Potomac, in the county of Berkeley. A bituminous spring was discovered on the estate of general WASHINGTON, which easily takes fire,

* Native quicksilver is said to have been found in the neighbourhood of Reading, in Pennsylvania. A bed of cinnabar has been discovered in Virginia. Immense quantities of sulphur, in a pretty pure state, are found in New York, and many other parts of the union. Black lead, arsenick, and antimony have been found in South Carolina. Mr. Chenevix has furnished us with a valuable analysis of a peculiar mineral (from Massachusetts), which he believes to contain a new semi-metal. B.

† Oysters are however found in the rivers at a considerable distance from the sea, as appears from Mr. Weld and other authors. According to Imlay, 135, there is a very rich vein of copper on the river Wabash.

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and continues burning for some time. The salt springs in Kentucky also deserve mention; and there are others in the state of Tennessee. Those at Onondaga, in the state of New York, are extremely valuable, supplying a great tract of country with this necessary article. Immense mines of rock-salt, have been discovered in one of the southern branches of the Missouri, in Louisiana. In Georgia, near the town of Washington, there is a remarkable spring rising from a hollow tree, which is incrusted with matter most probably calcareous. There are several mineral springs, of different properties, in South Carolina. The Eutaw spring which is purgative, will long be remembered, by reason of the engagement which took place near this water, in the year 1781, between the American army and that of Great Britain.*

NATURAL CURIOSITIES. The natural curiosities of the United States are numerous, and many of them have been examined with attention. Besides the irruption of the river Potomac through the Blue ridge, and other objects already mentioned, the principal uncommon features of nature shall be briefly indicated from Mr. Morse's American Geography, and from other sources. In Vermont there is a remarkable impendent ledge of rocks, about two hundred feet high, on the west bank of the river Connecticut; and in the same state is a curious stalactitic cave, in which, after a descent of 104 feet, there opens a spacious room about 20 feet in breadth, and 100 in length, with a circular hall at the further end, at the bottom of which boils up a deep spring of clear water. Rattlesnake hill in New Hampshire presents a stalactitic cave; and near Durham is a rock so poised on another, as to move with one finger; a natural remain of a ruined hill, though in England it would, perhaps, be called Druidical. The rivulet in Massachusetts, called Hudson's Brook, has excavated in a fantastic manner a large rock of white marble.† The falls of the river Powow, in the same state, are not only curious in themselves, but present many grotesque mills, and other monuments of industry; and a similar appearance occurs on the river Pautukit in Rhode Island. In Connecticut is a cave which was for some time the retreat of Whaley and Goffe, two of the judges of Charles I. and in the town of Pomfret is another, rendered remarkable by a humourous adventure of general Putnam.

In the state of New York a rivulet runs under a hill about seventy yards in diameter, forming a beautiful arch in the rock; and there is a stalactitic cave in which was found the petrified skeleton of a large snake. The falls of the Mohawk river, called Cohoes, are more remarkable for the width of the stream, than from the height of the descent. The height of the fall, however, is about seventy-five feet, and its width nine hundred. There are some very considerable falls on the Jenissein river, which rising in Pennsylvania, passes through the state of New York, and empties itself into lake Ontario. The falls of Passaic, in New Jersey, are an interesting object, as are those called Ohiopyle, on the Yochiogeny, in Pennsylvania. The Catawba falls, in South Caro-

* See Drayton's view of South Carolina, &c. for some interesting information respecting the natural history of this state. B.

† The small sandy desert, about five miles in length, near Race Point, which has overwhelmed a forest of trees, also deserves mention. Morse, p. 316.

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lina, are about ninety feet in height. There is a beautiful cascade in Fayette county, in Pennsylvania, over a semicircular rock of marble. In Pennsylvania there are also some remarkable caves, one of which resembles a church with pillars and monuments. This is on the Swatara, a branch of the Sunquehanna, in the county of Dauphin. In the territory on the north-west of the Ohio, the savannas, or rich plains, extend for thirty or forty miles without any tree; they are crowded with deer, wild cattle, and turkies, and often visited by bears and wolves. This district is remarkable for a number of old forts, chiefly of an oblong form, with an adjoining tumulus or tomb. Many of these ancient works have already been examined, and engravings of some of them have been published, both in England and in America. Whoever may have been the constructors of them, there can be little doubt that they are the remains of nations who were numerous, and much further advanced in the arts, than the greater number of the American tribes that are now known to us. The periods of their construction are unknown to us, but there are very good reasons for believing, that many of them have been in ruins for more than a century before the discovery of America by Colon. As the Mexicans have a tradition, that they originally migrated from the north, it has been conjectured that these works "may perhaps be remains of their first residence, or of some nation which they subdued." The Mexican tradition is perhaps as worthy of credit, as the similar traditions of other nations. But it is highly improbable that the Mexicans, in the course of their migration, ever visited the shores of lake Erie, or the banks of the Muskingum, Miami, and Scioto, where these works are extremely numerous.* In the western part of Maryland there are some remarkable caves; and many others occur in Virginia, particularly that called Madison's cave, on the north-west side of the Blue ridge, extending about 300 feet in solid limestone. The blowing cave emits a strong current of air, particularly in frosty weather. The natural bridge is a sublime and striking curiosity, being a rock covered with soil and trees, across a chasm, appearing to have been opened in the course of ages by a brook, which now runs between two and three hundred feet beneath.† The breadth of this bridge is about sixty feet; and the thickness of the mass about forty.‡ The rock is limestone, which easily wastes by the attrition of water, whence the number of caverns in that kind of rock, while in the granitic, or argillaceous they rarely occur. In Kentucky the banks of the river so called, and of Dick's river, are sometimes four hundred feet in height of limestone, or white marble; and there are said to be caverns of some miles in length, thus rivalling the celebrated cave in Carinthia. The territory on the south of Ohio (Tennessee) presents a remarkable ledge of rocks in the Cumberland mountains, about thirty miles in length, and two

* See Transactions of the American Philosophical Society, Vol. iv. No. xxii. Also, Observations on some parts of Natural History, &c. &c. part first, London: 1787. B.

† This brook often dries up entirely. In this state I found it in the beginning of September, 1802. B.

‡ In Mr. Weld's travel's there is a print of this singular bridge, which is not only curious but of great utility.

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hundred feet thick, with a perpendicular face to the south-east. The *whirl* is more grand than the irruption of the Potomac through the Blue ridge: the Tennessee, which a few miles above is half a mile wide, contracts to one hundred yards, and forces its way through the outer ridge of the Apalachian, forming a whirlpool by striking against a large rock. North Carolina furnishes us with one of the greatest curiosities in the United States. This is commonly called a "wall," and is supposed by some to be the work of the ancient inhabitants of the country. More careful inquiries, however, render it probable, that it is entirely a natural assemblage of regularly crystallized stones, of different sizes. In Georgia the chief curiosity is a large bank of oyster shells, ninety miles from the sea, to which it runs nearly parallel: if the river Savannah never passed in that direction, it is probable that the land has gained so far on the ocean.*

ISLANDS. The chief islands belonging to the United States are the following, viz. Martha's Vineyard, which is part of the state of Massachusetts: it is about twenty-one miles long and six broad. Nantucket, belonging to the same state: this lies to the eastward of Martha's Vineyard; and is fifteen miles long, and its general breadth three and an half miles. Rhode Island, from which the state receives its name, is about 15 miles long from north-east to south-west, and about three and an half broad. The town of Newport is situated in the island. Long Island belongs to the state of New York. It extends from Hudson's river, opposite to Staten Island, almost to the western bounds of the coast of Rhode Island, and terminates with Montauk Point: it is about 140 miles long, and its average breadth not above ten: it is separated from Connecticut by Long Island Sound: this island was called by the Indians of the country, *Manhattan*, and afterwards Nassau Island. Staten Island, already mentioned, is also a part of New York: it is about eighteen miles in length, and at a medium six or seven miles in breath. Many other islands, of more or less consequence, are scattered along the coast, and in the various bays and lakes of the United States; but they are too inconsiderable to be particularly noticed in a work such as the present.

* So late as the year 1771, there was an excellent harbour, which might receive one hundred ships in a good depth of water, at Cape Lookout, North Carolina. It is now entirely filled up, and is solid ground: Morse, 139: but it is to be wished that he had more enlarged upon so incredible a circumstance.

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THE SPANISH DOMINIONS IN NORTH AMERICA.

CHAPTER I.

HISTORICAL GEOGRAPHY.

BOUNDARIES.—ORIGINAL POPULATION.—HISTORICAL EPOCHS.—ANTIQUITIES.

CONCERNING the Spanish possessions in South America, considerable information may be derived from the travels and essays of Don Antonio de Ulloa, the writings of Bouguer and Condamine the French mathematicians, and more recently from two Germans, Dobrizhoffer and Helmes. But whether from a greater jealousy of possessions adjoining to those of the English, their most dreadful enemies, or from a combination of this or other causes, any recent and precise intelligence respecting their dominions in North America rarely appears. The visionary ideas of the abbé Clavigero, who has pretended to build a Mexican history upon paintings and symbols of most doubtful interpretation,* have enfeebled the credit to be lent to other parts of his tedious production; and even recent writers concerning Mexico† have

* I am far from thinking, that the Mexican paintings and symbols are, in every instance, of such "doubtful interpretation," as Mr. Pinkerton imagines they are. Recent discoveries in Mexico have unequivocally shown, that much dependence may be placed upon these symbols, &c. and it is not yet too late, from the monuments that are still preserved, to elucidate many important parts of the old Mexican history. The abbé Clavigero has undoubtedly fallen into some very essential errors; but his work is, nevertheless, a very important one. B.

† The true pronunciation is *Mechico*, from the peculiar sound of the Spanish *x*.

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been forced to borrow from Gage, and other authors of the seventeenth century. Amidst such a deplorable penury of materials, recourse must unavoidably be had to authorities which might in any other case be esteemed imperfect, dubious, or antiquated. Yet the Spanish dominions in North America are more important, in every respect, than those which they hold in the southern half of the new continent.

BOUNDARIES. In estimating the extent of these large and flourishing possessions it will be necessary, in the first place, to consider the boundaries. That towards the South East is decidedly the eastern boundary of Veragua, the last province of North America; consisting, according to Lopez, of a ridge, as already mentioned, called Sierras de Canatagua. Towards the north the Spaniards do not readily assent to a boundary:* but even according to the English maps it ascends to the Turtle lake, one of the sources of the Missisippi, since Louisiana was surrendered by France to Spain on the peace of 1763.† On the west the English specially claim the port of Sir Francis Drake; and mark the Spanish boundary at Fort St. Francisco, to the north of the town of Monterey. Upon the whole the scources of the Rio Bravo may be assumed as a medial boundary, as there are several small Spanish settlements to the north of Sante Fe, that is about latitude 39° 30′ while the southern boundary is about latitude 7° 30′ hence a length of thirty-two degrees, or 1920 geographical miles. But the breadth little corresponds to this prodigious length of territory; though in one place from the Atlantic shore of East Florida to those of California on the Pacific, it amounts to about three quarters of that length; but the narrowest part of the isthmus in Veragua is not above twenty-five British miles: in general the medial breadth can scarcely be computed at more than 400 geographical miles.

Of this wide empire the chief part is distinguished by the name of MEXICO, or NEW SPAIN; the provinces, in ascending from the south to the north, being Veragua, Costa Rica, Nicaragua, Honduras, (with the Mosquito shore claimed by the English) Guatimala and Verapaz, Chiapa, Tabasco, and the Peninsula of Yucatan, Guaxaca, Mexico proper, including subdivisions: with New Gallicia, Biscay, and Leon. What is called the empire of Mexico was in truth only a moderate kingdom, about 600 miles in length, by 140 in breadth. Nay the republic of Tlascala was within sixty miles of the capital.

BOUNDARIES. The provinces further to the north are Cinaloa and others on the gulf of California, with that large Chersonese itself: New Mexico includes the most northern central settlements on the Rio Bravo; while, towards the east, Louisiana, and the two Floridas, complete the chief denominations. But the great divisions are properly only four: 1. LOUISIANA.‡ 2. The two FLORIDAS. 3. NEW MEXICO.

* They in fact claim the whole north west of America, pretending a prior right of discovery to the English, or any other nation; and appoint a Governor of New California, by which name they imply all the north west coast of America. See La Perouse, vol. ii. chap. xi. xii.

† But D'Anville's map of Loisiana, 1752, certainly held complete, extends only to latitude 32° 10′ so that there seems a gratuitous addition of nearly one half the length of that country.

‡ See appendix to the article America. B.

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which contains Coaguilla, New Estremadura, Sonora, Texas.* New Navarre. 4 Mexico or New Spain, which includes the other provinces and seems to extend to the river of Hiaqui, but the boundaries between Old and New Mexico do not seem to be indicated with any precision.

Original Population. The original population of these extensive regions was various, consisting of Mexicans, and other tribes, considerably civilized in the centre, while to the north and south were savage races. The origin of the Mexicans is still involved in obscurity, notwithstanding the researches of many ingenious, learned, and laborious men. Their language appears to bear but little affininity to that of the Peruvians: but it must be confessed that the Mexican vocabularies have not been examined with sufficient attention.† Some progress has been made in the difficult task of comparing these two languages with those of northern Asia. Very striking affinities have already been discovered; sufficient to authorise the conclusion that the Mexicans and Peruvians are of Asiatic origin. The learned Camper proceeded upon a very feeble foundation in supposing, that the Mexicans were derived from Europe. Upon a foundation still more feeble has it been supposed, that these Americans were emigrants from Africa. The traditional history or paintings of the Mexicans, their physical appearance, as well as their language, and even their shocking system of religion, are all favourable to the idea that they sprang from Asia. It is not yet too late to determine with much more certainty to which of the Asiatic nations they are most intimately allied. This may be done by an extensive examination of the Mexican languages. In the meanwhile it is certain that not a few of the Mexican words are

* The Spanish *x* is pronounced *h* or *sh* as *Xab* Tamas is Shah Tamas. The *j* is also pronounced as *h*.

In the travels of M. de Pages round the world, it is asserted that New Mexico is further to the south than our maps bear; which is indeed far more probable than the credit of that author. Clavigero, p. x. regrets the defects of the maps of Mexico. Two maps of the coasts of Spanish North America were published at Madrid, 1797.

† Mr. Pinkerton says "the Mexican vocabularies are very imperfect. They are much less imperfect however than has been supposed. It appears from Clavigero that there have been published many vocabularies and grammars of the Mexican language. The writer of this note is in possession of an extensive work on the subject, under the title of Vocabulario en Lengua Castellana y Mexicana, &c. &c. printed in Mexico, in 1571. B.

‡ For this opinion, however, there does not appear to be any very solid foundation. Dr. Forster, in his history of voyages in the North, p. 43, supposes that the Mexican and Peruvian empires were founded in the thirteenth century by the troops contained in some of the ships sent by Kubai Khan from China to subdue Japan; that great fleet having been scattered, and supposed to have been lost in a severe tempest. It is highly probable that America owes some of its inhabitants to the event just mentioned: but it is not likely that either the Mexicans or Peruvians were thrown into America at this late period. The tradition of some of the Mexican nations ascends to a period much more remote than that at which the fleet of Kublai is said to have been dispersed. That some of the Carolina tribes came into America several hundred years *after* the commencement of the Christian era, I have rendered somewhat probable in the first part of my Collections for an essay towards a materia medica of the United States. p. 56—58. Philadelphia 1801. B.

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to be found among the Tatar, and other Asiatic nations.* It is much to be regretted that the Mexican and Peruvian empires were destroyed; as, not to mention the cause of humanity, they would have afforded curious objects for philosophic observers of human nature. The general pinion seems to be that the Mexicans and Peruvians were a distinct race from the other Americans†; and amidst a variety of conjectures it might be inquired if they did not proceed from Japan, or be haply of the same race with the people of the large island of Tchoka, or Sagalian, whose features, as described and delineated by La Perouse, and the literary men who accompanied him, bear no resemblance to the Tataric. In this case we may conceive that they are remains of a people in eastern Asia, who were expelled by the Mandshurs on their progress from more western settlements.‡

Historical Epochs. The historical epochs of Mexico have been of little moment since it was conquered by the Spaniards in 1521, when the last monarch Guatimozin perished, Montezuma having died in the preceding year. According to the Mexican traditions their ancestors consisted of several savage tribes, who about the tenth or eleventh century of the Christian era moved in successive migrations from unknown regions towards the north and north-west, and settled in Anahuac.‖ About the beginning of the thirteenth century a tribe more polished than the rest, advanced from the borders of the Californian gulf, and took possession of the plains adjacent to the great lake near the centre of the country.** They were for a time governed by

* "The animals of America (says Mr. Pinkerton) are mostly distinct from those of the old continent; and could in no case have descended from them. If it cannot be allowed that the great Creator, in like manner, ordained a distinct race of men for this continent, it will be necessary before this curious question be determined to collect vocabularies of the African languages, as there are in that continent several nations of a copper colour, resembling the Americans." Many of the animals of America are specifically the same as those of the old world. This observation applies to the quadrupeds and other mamalia, the birds, the amphibia, the fishes, the insects, &c. It is certainly easy to conceive in what manner these animals, common to both continents, may have passed from the old to the new world, or from the latter to the former. It is not attempted to be denied, that America possesses many species of animals, as well as of vegetables, which appear to be exclusively confined to this portion of the globe. See New Views, &c. preliminary discourse. ci—civ. With respect to the human inhabitants, it has already been observed, that they are of Asiatic origin. B.

† The honest missionary Dobrizhoffer, after residing twenty-two years in America, and a formal examination of this question, declares that he cannot trace any resemblance of the Americans, or their language, in any other part of the globe; and that he should incline to believe, were it not from the apprehensions of ridicule, that they have dropped from another planet. There seems a shadow of resemblance between some of the Mexican words published by Dr. Forster and the Tchoka published by La Perouse, as *tche*, three, is in Mexican *yei*, &c. This origin will singularly coincide with the Mexican traditions.

‡ Careri has published a curious Mexican drawing of the progress of the colony.

‖ Robertson's America, v. iii. p. 156.

** For some account of these monarchs, and those of the neighbouring tribes, the reader may consult Clavigero.

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chiefs or judges, till the territories becoming more extensive, the supreme authority centred at last in a single person. Even from the most extensive accounts the monarchial government had not lasted above 187 years; that is, it commenced about A. D. 1324, the first monarch being Acamapitzin.‖ Wars and rebellions, famines and inundations, constitute the chief features of Mexicanhistory; and the Spanish government presents few events of moment, the natives being confined between the two seas, and more easily checked than in South America where there is a wide extent of territory for retreat and conspiracy.

The extensive peninsula of California was discovered by Cortez in 1536, but was so completely neglected, that in most charts it was represented as an island§ The jesuits afterwards explored this province, and acquired a dominion there as complete as in Paraguay. On their expulsion in 1766 it was found to be a not unfertile region, with some mines of gold and a valuable pearl fishery. The countries of Cinaloa and Sonora, on the east side of the Vermillion sea or gulf of California, as well as the immense provinces of New Navarre, and others of New Mexico, never were subject to the Mexican sceptre, but now acknowledge the power of Spain though the settlers be few*. In 1765 a war broke out with the savages, which ended in their submission 1771. During their marches the Spaniards discovered at Cineguilla, in the province of Sonora, a plain of fourteen leagues in extent, in which vast quantities of gold were found in large lumps, at the depth of only sixteen inches. Before the end of the year 1771 above two thousand persons were settled at Cineguilla; and other mines, not inferior in wealth, have been discovered in other parts of Sonora and Cinaloa. It is probable that these discoveries have instigated other settlements in the northern parts of New Spain, and in New Mexico. These colonizations, and the settlement of Santa Fe, and others in that vicinity, are important events in the history of the Spanish territories. It is however to be lamented that the progress of these settlements has not been explained with more care and accuracy, for no small obscurity attends their chronology.

The wide territory on the north-east called Louisiana, was first explored by Soto, but afterwards neglected till 1682, when from some intelligence conveyed to the French settlers in Canada, M. de la Salle was induced to sail down the Missisippi, which was afterwards to give name to the noted scheme of Law. New Orleans was afterwards founded in 1717, on the Missisippi, and when the wide navigation of that river is considered, this city must become of great consequence. By the treaty of peace, 1763, that part of Louisiana which lies to the

* New Mexico was disclosed in 1553 by Antonio d'Epejo. Gage, p. 55, mentions a city of that name as lately built.

† The ancient monuments of the Mexicans were not merely symbolical paintings, but also extensive carvings in stone, some of which have lately been discovered. The Mexican century has been found under ground, and affords a striking proof of the *veracity* of some of the early historians of America. B.

‡ Robertson's America, iii. 228.

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east of the Missisippi was surrendered to England; and the French afterwards yielded the other part to Spain.

The history of the Floridas is sufficnietly known After havingbeen contested between the French and Spaniards, they were yielded to the English by the peace of 1763; but being regained by the Spaniards during the American war, they were finally assigned to that nation by the treaty of 1783.

ANTIQUITIES. The ancient monuments of the Mexicans seem chiefly to consist of a few symbolical paintings, the colours of which are remarkably bright, but the designs rude†. Some of their utensils and ornaments have also been preserved, but are coarse and uncouth. Their edifices appear to have been little superior, being meanly built with turf and stone, and thatched with reeds, The great temple of Mexico was a square mound of earth, only ninety feet wide, partly faced with stone; with a quadrangle of thirty feet at the top, on which was a shrine of the deity, probably of wood. The most remarkable monument still remaining is thought to be the aqueduct of Chempoallan....but the architect was a Franciscan missionary*. Our fanciful author proceeds to prove, from tribute rolls, that the Mexicans used lime; but the best proof would have been a few solid walls. As the first Spanish conquerors, in the true spirit of Mendez de Pinto, described every trifling object in the wildest colours of hyperbole, so the warm imagination of Clavigero creates wonders for its own admiration†.

* Clavigero, i. 420.

" † Careri, vi. 204, briefly deseribes the *coue*, or pyramids, near Teoti Guacan, called those of the sun and moon; but his account is brief and unsatisfactory, and drawings are wanted." Pinkerton. The learned author asserts, that " the Mexicans appear to have little exceeded the inhabitants of Easter island in any of the arts." Surely this observation is the result of a very limited attention to the authentic condition of the Mexicans. See Clavigero, ii. p. 371, 372, where it appears very evident, that the Mexicans were actually acquainted with the use of lime, and knew how to construct durable walls, arches, &c. B.

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CHAPTER II.

POLITICAL GEOGRAHPY.

RELIGION.—GOVERNMENT.—POPULATION.—ARMY.—NAVY.—REVENUE.—POLITICAL IMPORTANCE.

RELIGION. The religion of the Spanish settlers in these provinces is well known to be the Roman Catholic, and of such a sort as greatly to impede industry or prosperity, for it is computed that one fifth part of the Spaniards consists of ecclesiastics, monks, and nuns; and that country must be miserably defective in which the jesuits were of distinguished industry. The establishment of the inquisition, and the strange fanaticism of the Spaniards, have not only crushed all spirit of exertion, but have prevented the admixture of other Europeans, whose industry might improve their settlements, and whose courage might defend them.

The religion of the ancient Mexicans appears to have been chiefly founded on fear, the temples being decorated with the figures of destructive animals: the fasts, penances, voluntary wounds, and tortures, formed the essence of their rites. Human sacrifices were deemed the most acceptable; and every captive taken in war was cruelly tortured and sacrificed. The heart and head were the portion of the gods; while the body was resigned to the captor, who, with his friends, feasted upon it. The extinction of such a ferocious people may not perhaps be worthy of much regret; but modern philosophy is apt to decide upon a slight and imperfect view.

Thus, instead of a benevolent deity, the worship of the Mexicans may be said to have been directed to the evil principle of some oriental nations, whom all their efforts were stretched to appease. In the Mexican language *Teotl* was a general name for any divinity, and in obscure theory they believed in a creator whom they styled *Ipalnemoani*, that is, "he by whom we live:" but their supreme deity was rather that evil spirit called *Klacatecolotoll*, or the *rational owl*, whose delight was to injure and terrify. They believed in the immortality of the soul, and a kind of transmigration; the good being transformed into birds, and the bad into creeping animals. The principal deities were thirteen in number, among whom were the sun and moon; and Tlaloc, the god of water, was the master of paradise; but Mexitli, the god of war, received the chief adoration. There were other gods of the mountains, of commerce, &c. and the idols, rudely formed of clay, wood, or stone, sometimes decorated with gems and gold, were

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numerous. One was composed of certain seeds, pasted together with human blood. The priests wore a black cotton mantle, like a veil; and there seem to have been orders of monks, as among the eastern nations of Asia. The austerities and voluntary wounds of the priests, their poisonous ointments, and other abominable rites, even as related by Clavigero*, evince that the entire system was the most execrable that has ever appeared on the face of the earth, alike blasphemous to God and pernicious to man†. Certainly the Spaniards never sacrificed more victims than the Mexicans themselves devoted‡, and the clamours of pretended philosophy will often be found in opposition to the real cause of humanity, which it aspires to defend. Could a change of manners have been effected without the use of the sword, it would have been highly desirable; but the design might have been as fruitless as a sermon to a tiger or a rattlesnake. The cruelties of the Spaniards must by candour, be partly imputed to the profusion of torture and human blood which everywhere met their eyes in this unhappy country; as such scenes change the very nature of man, and inflame him like the carnage of a battle.

Numerous bishopricks and archbishopricks have been instituted by the Spaniards throughout their American possessions; but the ecclesiastic geography if even accurately arranged from the latest information, would little interest the general reader. The prelates are nominated by the king, and the decorations of the churches are excessive.

Government. The ancient government of Mexico was an hereditary monarchy, tempered however by a kind of election not unknown in the barbarous ages of Europe, by which a brother or nephew of the late king was preferred to his sons. Despotism seems

* See, i. 125, a father invited to the sacrifice of his daughter: and, 232, the human victims sacrificed at the consecration of two temples were twelve thousand two hundred and ten!

† Mr. Pinkerton says the whole system of Mexican religion "is so totally unlike any system ever practised in any part of Asia, that there is additional cause to believe that the people were either indigenal, or have proceeded from Africa, in which alone (as among the Giagas) such cruelties may be traced. The Asiatic religions (he continues) seem universally mild, and even gay, as natural in the worship of a being who is benevolence itself; while in Africa the preponderance of the evil spirit seems to have been acknowledged by many nations."

‡ Very different is the opinion of Clavigero. "Thus (says the historian of Mexico, ii p. 193, 194.) it has been said, in conducting the Spaniards, a polished nation of Europe, to overturn the rude monarchy of the Mexicans, in America, did Providence punish the latter for the injustice, cruelty, and superstition of their ancestors. But there the victors, in one year of merciless massacre, sacrificed more human victims to avarice and ambition, than the Indians during the existence of their empire devoted in chaste worship to their native gods: there the legislative art of Europe corrected the bloody policy of American tribes, and introduced the ministry of justice, by despoiling Indian caziques of their territories and tributes, torturing them for gold, and enslaving their posterity; and there the mild parental voice of the Christian religion was suborned to terrify confounded savages with the malice of a strange, and by them unprovoked God; and here gentle arm in violence lifted up, to raze their temples and hospitable habitations, to ruin every fond relict and revered monument of their ancestry and origin, and divorce them in anguish from the bosom of their country." B.

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to have begun with the celebrated Montezuma. There were several royal councils, and classes of nobility, mostly hereditary. The nobles were styled *pilli* or *tlatoani*, but the Spaniards introduced the general term of *cazik*, which Clavigero says, signifies a prince in the language of Hispaniola; but is by some asserted to imply a priest among the Mahometan Malays. Land was not supposed to belong to the monarch, but was alienable by the proprietors. As writing was unknown there was no code of laws, but Clavigero has preserved some traditions on the subject. Their armour and tactics appear to have been extremely rude.

The Spanish government is vested in the viceroy of Mexico, whose rank and power are far superior to those of Peru, and the new kingdom of Granada*. The legal salary of the viceroys of Mexico and Peru is now forty thousand ducats; but the disposal of lucrative offices, monopolies, connivances, presents, &c. sometimes swell them to an enormous amount. The court of the viceroy is formed on the regal model, with horse and foot guards, a grand household, and numerous attendants. In the provinces there are tribunals called audiences, of which there are eleven for Spanish America; and the council of the Indies, resident in Spain, controuls even the viceroys. Some of the provinces seem to be merely geographic, or ecclesiastic denominations of sees, without any municipal or peculiar jurisdiction: but some have governors appointed by the viceroy. Besides the laws of Spain there are particular codes and statutes, which are consulted in legal decisions.

Population. The population of all the Spanish provinces in North America has been estimated at little more than 7,000,000; of whom the natives, called Indians, are supposed to amount to 4,000,000; and the Spaniards and inhabitants of mixed races are computed at 3,000,000, of which the Spaniards may constitute one third. This calculation is however considered as liberal, while it is probable that the whole population of Spanish North America does not exceed 6,000,000†. The small pox is remarkably fatal, and the black vomit, already mentioned, acts at intervals, with the ravages of a pestilence. The number of priests, monks, and nuns, is also injurious to population; which, however, appears upon the whole to have greatly increased. In 1612 the inhabitants of Mexico were computed at 15,000, they are now 150,000‡.

The population of America, before the European conquest, appears to have been greatly exaggerated, as usual in every case of the like nature; and from rough calculations, offered even by classical authors, perhaps four fifths may be always deducted. That this is the case at least with the discoverers of new countries, may be judged from our own enlightened times, in which the English voyagers to Otaheite sup-

* About 1776 the north-west provinces of Sonoro, Cinaloa, California, and New Navarre, were erected into an independent government, but without the title of viceroy. Robertson, iii. 337. A governor, or lieutenant, of the two Californias, resides at Monterey. La Perouse, ii. 196.

† From the recent travels of Helms, it appears that the population of Mexico is far superior to that of Peru.

‡ Careri in 1697 computed them at 100,000.

posed the inhabitants to exceed 100,000, when upon actual enumeration, there were found little more than 16,000. It is probable that when America was discovered, the whole population, including the West Indies, did not exceed 4,000,000. Besides the usual mistakes, there was an additional source of exaggeration, as the Spanish conquerors, like knights-errant, counted hundreds by thousands; and the oriental vein of hyperbole, introduced by the Moors, has tainted the early Spanish authors.

Army. The Spanish armies in America, must depend, in a great measure, upon the supplies sent from Spain; and jealousy seems to have prevented any just ideas concerning the military force constantly maintained in garrisons and other stations, to check the natives, and prevent foreign invasion. Spanish troops have however greatly declined in reputation; nor does the climate of their possessions in America seem favourable to courage or enterprize.

Navy. The navy is also that of the parent country; but there are many guard ships and commercial vessels solely appropriated to the American colonies*.

Revenue. The revenue which Mexico yields to the Spanish crown has been shewn by Dr. Robertson to amount to above 1,000,000 sterling, but there are great expenses. By the most recent account the total revenue derived by Spain from America and the Philippines is 2,700,000*l.*; of which one half must be deducted for the extravagant charges of administration. It has been asserted that the king's fifth of the mines of New Spain only was 2,000,000 sterling, which would swell the annual produce of the Mexican mines to 10,000,000. Dr. Robertson shews, from Campomanes, that the whole produce of the American mines is 7,425,000*l.* of which the king's fifth if regularly paid would be 1,485,000: and it is probable that the mines of New Spain or Mexico, prior to the opulent discoveries in the north-west provinces, did not yield above one half of the whole amount.

Political Importance. The political importance of colonies is of course merged in that of the parent country. If the spirit of bigotry could be suppressed, which neglects every worldly concern, and if the Spanish colonies were thrown open to the industry and enterprize of foreigners, they might recover from their enfeebled state, and oppose a bold front to any invaders. In the present situation of affairs perhaps sound policy would even dictate their emancipation, on condition of paying an annual tribute, which might even be more considerable than the present revenue, from the suppression of useless offices and emoluments, and the extortion of powerful individuals, which yields nothing to the revenues of Spain. Dr. Robertson has observed that the Mexican gazettes are filled with descriptions of religious processions, and edifying accounts of the consecrations of churches, festivals, and beatifications of saints, and other superstitious baubles, while

* Four corvettes of twelve guns and one goletta, are stationed at Monterey, to supply the presidencies of North California with necessaries. These vessels performed the Spanish expeditions to the north-west coast of America. La Perouse, ii. 207.

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civil and commercial affairs occupy little attention*. The advertisements of new books shew that two thirds are treatises of scholastic theology and monkish devotion. Even this state of affairs is better than the sanguinary idolatry of the natives: but few exertions of ability or industry can be expected from such fanatics; and it may easily be predicted that a continuance of this spirit would render the people as unfit for war as for pacific enterprizes.

* Some of the Spanish American gazettes which I have seen (particularly the Gazeta de Guatemala) are more respectable productions, than they are here represented to be. They contain some interesting memoirs on the antiquities, natural history, &c. of the country, and plainly evince, that the inhabitants are actually making some progress in those liberal and dignified pursuits, which add glory to the character of a people. Several valuable books on the languages, &c. of the ancient Mexicans have been published in the city of Mexico; and it is hardly necessary to add, that the botany of Mexico and Peru, and the adjoining countries have, within the last twenty years; been greatly attended to. B.

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CHAPTER III.

CIVIL GEOGRAPHY.

MANNERS AND CUSTOMS.—LANGUAGE.—EDUCATION.—CITIES AND TOWNS.—EDIFICES.—MANUFACTURES AND COMMERCE.

MANNERS AND CUSTOMS. THE manners and customs of the Spaniards in their North American settlements have not been particularly illustrated; but if they differ from those of the parent country it is chiefly in an increase of religious fanaticism. Those of the ancient Mexicans have been described by many authors, but a few singularities may be here mentioned. A peculiar feature of the Mexican language was, that a termination indicating respect might be added to every word. Thus, in speaking to an equal, the word father was *tatl*, but to a superior *tatzin*. They had also reverential verbs, as appears from Aldama's Mexican grammar. Thus, as cowards are always cruel, the most ferocious people in the world were at the same time also the most servile and obsequious. Their wars were constant, and sanguinary, and their manners in general corresponded with this barbarous disposition: the principal warriors covering themselves with the skins of the sacrificed victims, and dancing through the streets*. The year was divided into eighteen months, each of twenty days, and five days were added, which were dedicated to festivity. They cultivated maize and some roots, but their agriculture was rude, and they were strangers to the use of metallic money†. On the death of a chief, a great number of his attendants were sacrificed.

LANGUAGE. Of the Mexican language grammars and dictionaries have been published in the country‡; and from the few specimens contained in European publications it appears to differ radically from the Peruvian. The words frequently end in *tl*; and are besides of a surprising and unpronounceable length, resembling in this respect

* The dress was a loose cloak, and a sash girt round the naked waist. From the ancient paintings it appears that the under lip was pierced to receive an ornament of gold. This custom La Perouse and others have observed on the north west coast of America.

† They however made use of the cacao as money. "The cacao (says Clavigero, ii. p. 366) had its fixed value, and was reckoned by numbers; but, to save the trouble of counting it, when the merchandize was of great value and worth many thousands of the nuts, they knew that every bag of a certain size contained three Xiquipilli, or 24,000 nuts. B.

‡ See p. 459.

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the language of the savages in North America.* According to Clavigero the Mexican tongue wants the consonants *b*, *d*, *f*, *g*, *r*, and *s*; in which respect only, though unobserved by that author, it strictly coincides with the Peruvian; except that the latter, instead of the *s*, is said to want the *z*, a mere difference of enunciation. It abounds with *l*, *x*, *t*, *z*, *tl*, *tz*. But the Peruvian is a far superior and more pleasing language, though some modifications of the verbs be of extreme length. Some of the Mexican words are of sixteen syllables. Their poetry consisted of hymns, and of heroic and amatory ballads. They had also a kind of dramas, but from the specimen produced they do not seem to have been superior to those of Otaheite.

EDUCATION. There are several laudable institutions in the Spanish settlements for the education of the Natives, and some colleges or universities; but the fanatical spirit of the instructors renders such foundations of little value.

CITIES. MEXICO. The chief city of New Spain, and all Spanish America is Mexico, celebrated for the singularity of its situation. In a beautiful vale surrounded with mountains the lake of Tezcuco is joined on the south to that of Chalco by a strait, on the west side of a tongue of land, the whole circuit of these lakes being about ninety miles. In a small isle to the north of this junction, and upon the west side of the lake of Tezcuco, rose the old city of Mexico, accessible by several causies raised in the shallow waters, but on the east side there was no communication except by canoes. It is said by Robertson, from recent Spanish documents to contain 150,000 inhabitants; of which probably a third part is Spanish. The most recent account of this remarkable city seems to be that given by Chappe D'Auteroche,† who visited it in 1769, and informs us that it is built upon a fen, near the banks of a lake, and crossed by numerous canals, the houses being all founded on piles. Hence it would seem that the waters of the lake have diminished, so as to leave a fenny access on the west.‡ The ground still yields in many places; and some buildings, as the cathedral, have sunk six feet. The streets are wide and straight, but very dirty; and the houses, resembling those in Spain, are tolerably built.

* Many of the Mexican words are sufficiently short, and easy of pronunciation: such are the following, *tata* (father), *nantli* (mother), *calli* a (house), *atl* (water,) *ca* (wherefore.) The termination in *tl* is common to the Mexicans and some of the tribes within the limits of the United States. B.

† Voyage to California, 1778, 8vo. This short but curious work seems to have escaped Dr. Robertson. A plan of Mexico is inserted but injudiciously not extended to the lake. The account of Mexico by Pages seems only to evince that his work is a fabrication.

‡ This probably happened after 1629, when there was a remarkable inundation, and a wide canal was led through a mountain to drain the lakes. The large lake is saline, the bottom being nitrous; but that of Chalco rather sweet. Certain it is that the site of the city is the same with the ancient, the viceroy residing on the spot of Montezuma's palace, in a large mansion built by Cortez, and still rented at four thousand ducats from the Marquises del Valle his descendants. La Croix, ii. 331. But compare Carcri, who has given from the original papers a curious detail concerning the precedure in draining the lakes.

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The chief edifice is the viceroy's palace, which stands near the cathedral in a central square, but is rather solid than elegant. Behind the palace is the mint, in which more than a hundred workmen are employed, as the owners of the mines here exchange their bullion for coin. The other chief buildings are the churches, chapels, and convents which are very numerous, and richly ornamented. The outside of the cathedral is unfinished, as they doubt the foundations; but the rail round the high altar is of solid silver, and there is a silver lamp so capacious that three men get in to clean it; while it is also enriched, with lion's heads, and other ornaments, in pure gold. The images of the virgin, and other saints, are either solid silver, or covered with gold and precious stones. Besides the great central square there are two others each with a fountain in the middle. "To the north of the town, near the suburbs, is the public walk, or *Alameda*. A rivulet runs all round it, and forms a pretty large square, with a bason and *jet d'eau* in the middle. Eight walks, with each two rows of trees, terminate at this bason, like a star, but as the soil of Mexico is unfit for trees they are not in a very thriving condition. This is the only walk in or near to Mexico; all the country about it is swampy ground, and full of canals. A few paces off, and facing the Alameda, is the *Quemadero*; this is the place where they burn the Jews, and other unhappy victims of the awful tribunal of inquisition. This Quemadero is an enclosure between four walls, and filled with ovens, into which are thrown over the walls the poor wretches who are condemned to be burnt alive; condemned by judges professing a religion whose first precept is charity."* The Spanish inhabitants are commonly clothed in silk, their hats being adorned with belts of gold and roses of diamonds; for even the slaves have bracelets and necklaces of gold, silver, pearls, and gems. The ladies are distinguished for beauty and gallantry. Mexico, though inland, is the seat of vast commerce between Vera Cruz on the east, and Acapulco on the west; and the shops display a profusion of gold, silver, and jewels. In magnificent regularity it yields to few cities even on the ancient continent. Gage whose authority is used by the most recent writers of all countries in the defect of other materials, says that in his time, 1640, there were supposed to be fifteen thousand coaches some of them adorned with gold and gems; the people being so rich that it was supposed that one half of the families kept equipages.†

Historical connection requires a brief notice of Tlascala, the republic which assisted Cortez, and which, in consequence, enjoyed great privileges, but in the time of Gemelli Careri, who visited it in the end of the seventeenth century, it had become a village. The see has been moved to Angelos, thirty miles to the south. The large province of Tlascala is however very flourishing and populous; as the natives enjoy some privileges granted to the republic.

Towns. The chief towns in the Spanish dominions in North America are St. Yago, Carthago, San Salvador, Guatimala, Chiapa, Guaxsaca, Vera Cruz, Acapulco, Mechoacan, Guadalaxara, Panuco, St. Ander, Durango, Cinaloa, whence a line drawn across to the mouth

* D'Auteroche, p. 44, † Survey of the West Indies, 1655, fol, p. 56.

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of the Rio Bravo, may be said to bound the long isthmus on the north. Where the territory widens from Florida to California, are St Augustin, Pensacola, New Orleans, Texas, St. Antonio, St. Paul, and Sante Fe. Towards the west, and in California, the settlements are small and unimportant. Monterey, though the residence of a governor, is a mere hamlet, the harbour dangerous, and infested with fogs. The harbour was discovered in 1602, but Monterey now the capital of the two Californias, was not founded till 1770.*

Concerning many of these towns there is little recent intelligence; and an earthquake might deface a laboured description. Guatimala was totally destroyed by an earthquake, June 7th 1773, when eight thousand families perished; but New Guatimala is well inhabited. Acapulco was a celebrated port of the south of Mexico, engrossing the chief Indian trade over the Pacific; while Carthagena, in South America, on the Caribbean sea, was a centre of European traffic. Both were in unhealthy situations, as Mexico itself; for by a fatal error the Spaniards, Dutch, and other Europeans, have in Asia and America founded cities on plains, in imitation of those in their own countries, while high situations ought to have been selected. Mechoacan is a fair commercial town; and Merida, the capital of the Peninsula of Yucatan, is a bishoprick, and the residence of the governor of the province. Old Vera Cruz was burnt by the Buccaneers, and a more advantageous position selected for the new city. It contains one church, and three monasteries, and is enclosed with ruinous fortifications: lying to the south east of Mexico, and the common port for European goods, where a spanish fleet used to arrive every two years, taking in return silver and other treasures.† On the north are barren sands, and on the west bogs, that have been drained. Guaxaca exports excellent wool and perfumes. St. Leon and Granada are both situated on the large lake of Nicaragua, where the chain of the Andes is supposed to terminate, even by those who carry its extension to the utmost limit.

Santa Fe. Santa Fe is remarkable as the most northern town of any note; but little is known concerning it except as the seat of a bishop, and the residence of a provincial governor. Even the inferior cities contain, as Robertson observes, a superior population to those of any other European nations in America, that of Angelos being computed at 60,000; and of Guadalaxara 30,000, exclusive of Indians‡.

Edifices. The chief edifices are the cathedrals, churches, and convents, as may be expected where the clergy are so predominant, that civil architecture, and civil affairs, are almost entirely neglected. Part of what may be called the high European road, from Vera Cruz to Mexico, is tolerably smooth and pleasant; but the others are probably neglected, and in so mountainous a country, they are rough and precipitous. Inland navigations seem unknown, and are perhaps unnecessary.

* La Perouse, ii. 200, where curious details may be found concerning the missions, or parishes, established among the savages.

† D'Auteroche California, 21.

‡ America, iii. 39.

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Manufactures and Commerce. New Spain is singularly distinguished by the multitude and variety of its productions, in all the three great reigns of nature, animal, vegetable, and mineral. This abundance of natural productions perhaps contributes to the neglect of manufactures. Even metallurgy is but poorly conducted. Cochineal and cocoa*, with a little silk and cotton, form articles of export; but the chief are gold, silver and precious stones. There was a celebrated fair at Acapulco, on the annual arrival of the ships from Peru and Chili, after which the noted galleon, laden with the wealth of America, pursued her course to Manilla. Other arrangements are now followed, and smaller vessels employed. The galleons were laid aside in 1748; and the late Spanish monarch instituted commercial regulations on a more liberal plan. In 1764 monthly packets were established between Corugna and Havanna, whence smaller vessels pass to Vera Cruz, and to Porto-bello in South America; and an interchange of productions by these vessels is also permitted. In the following year the trade to Cuba was laid open to all Spain; and the privilege was afterwards extended to Louisiana and the provinces of Yucatan and Campechy. In 1774 free intercourse was permitted between the three viceroyalties of Mexico, Peru, and New Granada. The courts of justice were also reformed, and a fourth viceroyalty was established, 1776, on Rio de la Plata. By a singular policy a free trade is permitted between New Spain and the Philippines, which adds considerably to the wealth of the former country. The English trade in the bay of Honduras may now be considered as terminated, the logwood on the opposite side of Yucatan being found to be of superior quality.

* Chocolcte is said to have been a Mexican liquor, and the best nuts are those of Guatimala.

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CHAPTER IV.

NATURAL GEOGRAPHY.

CLIMATE AND SEASONS.—FACE OF THE COUNTRY.—RIVERS.—LAKES.—MOUNTAINS.—FORESTS.—BOTANY.—ZOOLOGY.—MINERALOGY.—MINERAL WATERS.—NATURAL CURIOSITIES.

CLIMATE AND SEASONS. IN Florida, chiefly consisting of low grounds, the climate is insalubrious in the summer, when there is a kind of *mal aria* as in Italy; but the winters are mild and healthy. The climate of Louisiana is cold in the northern parts. In California epidemical distempers seem to be frequent; but the country has not been sufficiently examined by scientific observers. Moisture seems to predominate in the isthmus; but not to such a degree as in the South American province of Darien, where it may be said to rain for nine months of the year. The rains, however, temper the extreme heat, which would otherwise predominate in this climate. Violent storms are not unfrequent, and sometimes the lightning seems to rise from the ground*. The maritime districts of Mexico are, however, hot and unhealthy, so as to occasion much perspiration even in January†. The inland mountains, on the contrary, will sometimes present white frost and ice in the dog days. In other inland provinces the climate is mild and benign, with some momentary snow in winter, but no artificial warmth is found necessary, and animals sleep all the year under the open sky. There are plentiful rains, generally after mid-day, from April till September, and hail-storms are not unknown. Thunder is frequent; and earthquakes and volcanos are additional circumstances of terror‡.

FACE OF THE COUNTRY. The face of the country is rather mountainous than plain, except towards the shores, but the mountains are interspersed with delightful vales, and the soil is generally fertile. In the northern provinces of Louisiana and Florida, the soil corresponds with that of Georgia, and the western settlements of the United States. Concerning New Mexico and California there is little minute

* D'Auteroche.

† Clavigero, i. 11. He was himself a native of Vera Cruz.

‡ The climate of California is mild but foggy, and the soil remarkably fertile. La Perouse, ii. 203. Even northern California, as far as Monterey, is by his account singularly productive of maize, barley, and pease. Careri, vi. 35. Fr. tr. says there are three harvests in Mexico, in June, October, and the *aventurera*, or accidental one, upon the mountains.

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and authentic information; but the testimony of La Perouse is greatly n favour of the latter.

Rivers. The streams in the isthmus are of a short course, and little remarkable in any respect.

Rio Bravo. The principal river of Spanish North America is, beyond all comparison, the Rio Bravo, called also Del Norte, or of the northern star. The course of this important river, so far as its sources can yet be conjectured, may be about 1000 British miles; but its whole circuit probably exceeds that of the Danube. The nature of the shores and the various appearances, and qualities of the waters, have not been illustrated.

Next in consequence would seem to be the Rio Colorado, on the east of the Bravo, whose comparative course may be about 700 British miles. Towards the west is a large river which flows into the Vermillion sea, or gulf of California. also called by D'Anville *Colorado*, with the addition *de los Martyres*, but the main stream seems rather to be the *Rio Grande de los Apostolos*, barbarous appellations imposed by the Jesuits who had settlements in California. The course of this river may be computed at 600 British miles. Among the rivers of the isthmus may be mentioned those of Palmas, of Panuco, Tabasco, Sumasinta, St. Juan, all flowing into the gulf of Mexico. Those which join the Pacific ocean seem mere rivulets, till, in the vicinity of Mexico, the mountains rather tend to the east, and the streams of Yopez, and Zacatula, join the Pacific ocean. That of Guadalaxara rises to the west of Mexico, and being considered as passing through the lake of Chapala, will thus join the Pacific after a comparative course of 350 British miles*.

Lakes. The chief lake in Spanish North America, so far as yet explor d, is that of Nicaragua, which is about 170 British miles in length, north-west to south-east, and about half that breadth. This grand lake is situated in the province of the same name, tow rds the south of the isthmus, and has a great outlet, the river of St. Juan, to the gulf of Mexico, while a smaller stream is by some supposed to flow into the Pacific†. In the hands of an enterprising people this lake would supply the long wished for passage, from the Atlantic into the Pacific, and in the most direct course that could be desired. Nature has already supplied half the means, and it is probable that a complete passage might have been opened, at half the expense wasted in fruitless expeditions to discover such a passage by the north-west or north-east. This speculation must depend on circumstances, but if a passage were once opened, the force of the ocean would probably enlarge it; and a tribute at this new sound would be a considerable source of revenue. Among the more northern lakes that of Mexico is not only celebrated, but of considerable extent, being, according to the best maps, more than thirty British miles in length, north to south, if the part called Chalco be included. Towards the west in this part, where the isthmus

* D'Anville calls it the Barania.

† This last seems doubtful, or perhaps only exists during the inundations. Mr. Edwards, Hist. W. Ind. i. 18. quotes Dr. Dancer's History of the Expedition from Jamaica to Fort Juan on the lake of Nicaragua, 1780.

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begins to enlarge, there are several lakes, the principal being that of Chapala, which is about sixty British miles in length by twenty in breadth. The north-western parts have been little explored, but probably contain some lakes of considerable extent. In West Florida are the lagoons of Ponchatrain and Maurepas; and in East Florida the lakes of Mayaco and George, with others of smaller note.

Mountains. The whole of the Spanish territories in North America may be regarded as mountainous. The grand chain of the Andes seems to terminate, as already mentioned, on the west of the gulf of Darien in South America, but by others is supposed to extend to the lake of Nicaragua. Even this extension would totally differ in its direction from the Andean range, as bending north-west, then south-west, then again north-west, so that the main range seems here lost, or passes through the Carribean sea in the isles of Mosquitos and others towards Jamaica; while the mountains in the south of the isthmus, as far as the lake of Nicaragua, must be regarded as only a branch, declining much in height, till it finally expire at that lake. In this point of view the ranges passing from north to south must be regarded as spurs of the main chain; but as on the one hand orology is confounded by minute and various appellations given to portions of the same range, so it may be equally perplexed by too extensive appellations; which, as in the case of the Taurus of the ancients, can only impart confused and erroneous ideas. The Mexican mountains seem to consist of gneiss, granite, &c. while the grand chain of the Andes has a most peculiar character, being composed of argillaceous schistus. It has already been observed, that the ridge of Canatagua passes north and south between the provinces of Veragua and Panama. It is followed in the former province by the range called Urraca, and the volcano of Varu; and by several ridges in Costa Rica.

To the north of the lake of Nicaragua the main ridges often pass east and west; and the Sierra of Yucatan north-east. The chief summit of Nicaragua, seems to be the Mamatombo. The volcano of Guatimala, raged furiously during the earthquakes which ruined that great city in 1773. In the ancient kingdom of Mexico, which extended from near the lake of Chapala in the north, to Chiapa, on the river Tabasco in the south, the summits rise to great height, as being the central parts of a range wholly unconnected with the Andes. Their direction has not been laid down with care or intelligence, more attention having been paid to the numerous volcanos, than to the other grand features.

Orisaba, or Orisava. D'Auteroche observes that the mountain of Orisaba is said to be the highest in Mexico, and its snowy summit is visible from the capital, a distance of sixty miles. This celebrated mountain is to the south-east of Mexico, not from the road to Vera Cruz; it became volcanic in 1545, and continued for twenty years; since which time there has been no appearance of inflammation. Though the summit be clothed with perpetual snow, the sides are adorned with beautiful forests of cedars, pines, and other trees*.

* D'Auteroche California, p. 37. Clavigero, i. 13, who adds that it is the highest land of the kingdom, and its conic form observed at sea, at the distance

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The detached mountains called by the Mexicans, Popacatepec, and Iztaccihuatl, are also to the south east of the capital, at about thirty miles distance, both being volcanic. The crater of the former is said to be half a mile wide, and celebrated for ancient eruptions. Both are covered with perpetual snow.* There are many other volcanoes in this singular province; while others are only remarkable for height, as the mountain of Tlascala, the Tentzon, Toloccam and others; the range now extending in a north west direction towards Cinaloa, and being called the Sierra Mada, or Moteer range, and the shining Mountains.† It is afterwards according to the best maps, joined by a ridge running north west from Louisiana; and after this junction passes through the north-west to the proximity of the arctic ocean, while the centre of North America consists of extensive and fertile plains.

The construction of the Mexican mountains has not been examined by any geologist. Among the substances basalt seems clearly indicated; and some others will be mentioned in the mineralogy. There are numerous forests on the sides of the mountains; and the peninsula of Yucatan is particularly abundant in logwood trees.

Botany. One of the numerous desiderata of topographical botany is a scientific account of the native plants that grow in the Spanish North American territory west of the Missisippi. We know in general that it is extremely rich in its vegetable productions, but are obliged to infer the particulars from the articles of commercial export from the Mexican harbours, and the short list given by Cavanilles of the Mexican plants cultivated in Spain.

Many of the trees and plants of Louisiana are inhabitants also of the United States, and have been already noticed. The similarity therefore of these, and the deficiency of information concerning the rest, prevent us from giving any thing more than a very few fragments of the botany of a country which, by its extent and climate, is well worthy of minute investigation.

The plants that characterise the North American possessions of the Spanish crown are cactus cochenilifer, a species of the Indian fig, upon which the cochineal insect more particularly delights to feed: convolvulus jalapa, the true jalap, a native of the province of Xalappa, in the viceroyalty of Mexico; copaifera officinalis and toluifera balsamum, two trees that yield the fragrant gum resins known in commerce

of fifty leagues. Some think it higher than the peak of Teneriffe. Gage p. 69, gives an account of Popacatepec, and says the volcanoes extend as far south as Leon in Nicaragua. His account of the wilderness three leagues north west from Mexico, p. 70, is curious, and his whole work very intesesting.

* Clavigero, i. 14, mentions that in 1460 a small hill near the village of Guacana burst with furious volcanic shocks, and emitted fire and burning rocks till in 1766 the circumference was six miles. The ashes were borne to the distance of 150 miles, and in Vallidolid, or Mechoacan, sixty miles distance, the inhabitants were obliged to sweep their yards two or three times in the day.

† A letter from Cinaloa (Hay de rebus Japonicis Antv. 1605, p. 945) says that province is bounded on the east by the *Tepeuan* mountains. Pinkerton.—In the Mexican language, *tepec* and *tepetl* signify a hill: hence, no doubt, the name *Tepeuan*. It may here be observed, that *tepec* is, unequivocally, a word of Tatar original. B.

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by the names of balsam of Capivi and of Tolu. The shores of the bays of Honduras and Campeachy have been celebrated from their very first discovery for their immense forests of mahogany and logwood: and the neighbourhood of Guatimala is distinguished for its indigo. The guajacum, the sassafras and tamarind, the cocoa nut palm, the chocolate nut tree, and a variety of others, which are better known as natives of the West Indian islands, enrich and adorn these fertile provinces. The pine apple grows wild in the woods, and the shallow rocky soils are inhabited by various species of aloe and euphorbia. A few Mexican plants have been introduced into European gardens, among which may be noticed the salvia fulgens, glowing with its crimson blossoms, the spiendid dahlia, the elegant straited sisyrinchium, the gigantic helianthus, and the delicate mentzelia.*

Zoology. The zoology has been illustrated by Hernandez, styled the Pliny of New Spain, who flourished in the middle of the sixteenth century. The variety of animals is very great. Among the most singular animals is the Mexican or haunchback dog, called *itzcuintepotzotli*; the *tlacuatzin*, or opossum; different species of armadillo; the *techichi* or *alco*, the *tozan* or *tusa*; a kind of porcupine, and many others described by several naturalists. What is called; the tiger seems a species of panther, and sometimes grows to a great size, though Buffon, ever fond of theory, assert that American animals are generally small. In South America it attains the length of a large ox, as appears from the testimony of Dobrizhoffer; but Clavigero says that the largest quadruped is the Danta, Anta, or Tapir, about the size of a middling mule, being amphibious. This animal seems to be different from the Lanta or Danta of Africa, described by Leo. The bison is found in New Mexico; and the musk cattle may perhaps extend as far. In California there are said to be wild sheep, and a species of antelope. The birds of New Spain are particularly numerous and curious.† Many of them are common to this country and to the United States.

Mineralogy. The mineralogy of the Spanish empire in North America is equal, if not superior to that of Peru, and the other southern provinces. Even in the northern parts nature has disclosed her treasures: the abundance of gold found in the province of Sonora has been already mentioned; and California is supposed to contain rich minerals.‡ The silver mines in New Spain, though they do not contend with Potosi, have long maintained great celebrity. Those of Sacotecas, or Zocatecas, are particularly distinguished. The produce of the Mexican mines, as already mentioned, has by some been comput-

* It is highly probable, that *many* of the Mexican plants have been introduced into the gardens of Spain; for the Spaniards have devoted great attention to the study of the botany of their American possessions. B.

† Pennant, A. Z i. 3. from Fernandez, Nov Hisp. x. c. 30. Lockman's travels of the Jesuits, i. 400. Du Pratz, ii. 95, gives a good account of the humming birds of Louisiana.

‡ The chief gold mines were formerly in the provinces of Tierra Firma and the new kingdom of Granada. Robertson, iii. 297. There were also several in Veragua, and many silver mines on the south of the province of Honduras. The pearl fishery in the Vermillion sea is neglected, because there are no good divers.

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ed at ten millions yearly; but the whole amount of the American probably does not exceed seven millions and a half; of which it cannot be supposed that North America produces more than two thirds. The ancient Mexicans found gold in many of their rivers; and silver was dug up, but little esteemed. The chief silver mines are now to the north-west of the capital, where there is a town called Luis de Potosi, more than 200 British miles from Mexico. These mines are said to have been discovered soon after those of Potosi, 1545: they are in a considerable range of mountains, which give source to the river of Panuco. Concerning the nature of these mines, and the manner of working them, the Spanish writers seem to be silent.

Copper is said to abound in some districts to the west of the capital; and tin is also mentioned among the Mexican minerals*. Mercury is likewise reported to have been found in Mexico, and there was a celebraed mine in Peru, but both seem to be now exhausted, as the chief supply is from Spain. Ambar and asphalt likewise occur in New Spain: and among the precious stones a few diamonds, with amethysts and turquoises, but the list is imperfect, and perhaps erroneous. The mountains also produce jasper, marble, alabaster, magnet, steatite, jad, talc. The stone called *tetzontli*, red and porous, was used in building, being perhaps a kind of tufa. The *itzli* is semi-transparent, of a glassy substance, and generally black, but also found white and blue: it was used in mirrors; and also for sharp instruments, being the same called *piedra del Gallinazzo* in South America, the obsidian or volcanic glass of modern mineralogy.†

MINERAL WATERS. There are several mineral waters of various qualities, sulphureous, vitriolic, and aluminous; and some springs of great heat, but none seem particularly distinguished. Besides the volcanos there are many natural curiosities, one of the most remarkable being the Ponte de Dios, or bridge of God, resembling, it is thought, the natural bridge in the state of Virginia. It is about one hundred miles south east from Mexico, near the village of Molcaxac, over a deep river called the Aquetoyaque, and is constantly passed as a highway; but it seems uncertain whether the river have worn the passage through a rocky mountain, or the fragment be part of a fallen hill detached by an earthquake. There are many romantic cataracts, among which must be mentioned those of the river Guadalaxara, between the city of the same name and the lake of Chapala. The floating gardens in the lake of Mexico were artificial curiosities, the bottom being formed of intertwisted willows.

* Clavigero, i. 387, says that the Mexicans used thin pieces of tin, and bits of copper in the shape of a hammer as money.

† At the end of D'Auteroche's voyage to California there is a curious lettter from Alzate a Mexican gentleman, to the Royal academy of Sciences at Paris, on the natural history of New Spain. He mentions some trees of surprising size, one of them fifty feet in circumference: and perhaps credulously reports that in digging a mine in the province of Roucra, petrified human bodies were found, which yielded a considerable quantity of silver. The large teeth and bones seem to be the same with those of the mammoth; and he obscurely describes absaltic columns. The bell stone is probably the sonorous marble of China. The cedar silver ore of Huajanato seems only dendritic, mingled with spar.

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BRITISH POSSESSIONS IN NORTH AMERICA.

CANADA.—DIVISIONS.—EXTENT.—RELIGION.—GOVERNMENT.—POPULATION.—REVENUES.—MANNERS AND CUSTOMS.—LANGUAGE.—CITIES AND TOWNS.—MANUFACTURES AND COMMERCE.—CLIMATE AND SEASONS.—FACE OF THE COUNTRY.—SOIL AND AGRICULTURE.—RIVERS.—LAKES.—MOUNTAINS.—ZOOLOGY.—MINERALOGY.—NATURAL CURIOSITIES.—NEW BRUNSWICK.—NOVA SCOTIA.—CAPE BRETON.—NEWFOUNDLAND.—THE BERMUDAS.—

Those parts of North America which still belong to Great Britain are extensive and of considerable importance, though so thinly peopled, and and in such a disadvantageous climate, that they sunk into insignificance, when compared with the great and flourishing colony belonging to Spain, or with the territories of the United States. The inhabitants of the former have been estimated at seven millions, and those of the States at five; while those of the British possessions scarcely exceed two hundred thousand souls, and the far greater part are French and indigenes.

Divisions. The chief of these possessions is Canada, now divided into two provinces, called Upper and Lower Canada, the former being the western division, on the north of the great lake or sea of Canada; while the lower division is on she river St Lawrence towards the east, and contains Quebec the capital, and the chief city of our remaining settlements.

On the east of Canada, to the south of the river St. Lawrence is Nova-Scotia; which in 1784 was divided into two provinces that of Nova-Scotia in the south, and New Brunswick in the north.

What is called New Britain comprehends the most northern parts towards Hudson's Bay, and the coast of Labrador. The large island of Newfoundland; that called Cape Breton; and the neighbouring isle St. John; complete the chief denominations of British territory. But in the English maps, while Greenland is assigned to Denmark, all the other most northern parts of America, on the east and on the west, as far south as the port of Sir Francis Drake, are impressed with the colour of British territory. By the right of prior or at least

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of more complete and precise, discovery the western coast might be considered as belonging to England, according to the established usage of all European nations; and which of course must be admitted as valid in a cause between any two of them. This right may indeed be carried to a ridiculous excess; and we have seen navigators in our own time giving new names to places in Cochin China, a country perhaps as civilized as their own; which is the same as if a Chinese junk should sail up the Thames, and the captain bestow new names upon every object. But in a country thinly inhabited by savages, and adapted for European settlements, the case is totally different; and any usage, however ridiculous must be admitted which tends to prevent disputes and contests. The first settlement seems however to be the most rational claim; and no such event having yet happened, the western coast of North America shall be arranged among the unconquered countries, which seems to be the most proper method, when the settlements are only a few detached factories, to which the natives profess no subjection. Hence the regions around Hudson's Bay, with Labrador and Greenland, are from the intense severity of the climate, declared free by nature, and shall also be classed among the unconquered countries. The present short description shall therefore only comprise Canada, and the other British provinces in the south, which form actual possessions or colonies.

CANADA.

Extent. This country is computed to extend from the gulf of St. Lawrence, and isle of Anticosti in the east to the lake of Winnipeg in the west, or from longitude 64° to 97° west from London, thirty-three degrees, which in that latitude may be about 1200 geographical miles. The breadth from the lake of Erie, in the south, or latitude 43° may extend to latitude 49°, or 360 geographical miles; but the medial breadth is not above 200. The original population consisted of several savage tribes, whose names and manners may be traced in the early French accounts, which may also be consulted for the progressive discovery, the first settlement being at Quebec in 1608. During a century and a half that the French possessed Canada they made many discoveries towards the west; and Lahontan in the end of the seventeenth century, has given a tolerable account of some lakes beyond that called Superior, and of the river Missouri. Quebec being conquered by Wolfe 1759, Canada was ceded to Great Britain by the treaty of Paris 1763.

Religion. The religion is the Roman Catholic, but the British settlers follow their own modes of worship. There are only twelve clergymen of the church of England, including the bishop of Quebec; while the Catholic clergy are 126. By an act passed in 1791 a legislative council, and an assembly, are appointed for each of the provinces of Upper and Lower Canada having power to make laws with the consent of the governor but the king may declare his dissent at any time

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within two years after receiving any bill. The legislative council is to consist of seven members for Upper Canada, and fifteen for the lower province summoned by the governor under the king's authority, and nominated during their lives, except forfeited by an absence of four years, or by paying allegiance to a foreign power. The house of assembly is to consist of fifty members from Lower Canada, and sixteen from Upper Canada, chosen by the freeholders in the towns and districts. These councils are to assemble at least once every year; and the house of assembly continues four years, except in case of prior dissolution. "The governor, together with such of the executive council as shall be appointed by the king for the affairs of each province, are to be a court of civil jurisdiction for hearing and determining appeals; subject however to such appeals from their sentence as heretofore existed. All lands in Upper Canada are to be granted hereafter in free and common soccage; and also in Lower Canada, when the grantee shall desire it, subject nevertheless to alterations by an act of the legislature. British America is superintended by an officer styled Governor General of the four British provinces in North America, who besides other powers, is commander in chief of all the British troops in the four provinces, and the governments attached to them and Newfoundland. Each of the provinces has a lieutenant-governor, who, in the absence of the governor general, has all the powers requisite to a chief magistrate."*

Population. The population of the two Canadas according to an actual enumeration ordered by general Haldimand in 1784, amounted to 113,012 French and English, exclusive of 10,000 loyalists in the upper parts†. It is probable that the population has increased since that period; and certainly would greatly increase if the favourable representations of Mr. Weld were credited. The only revenue arising to Great Britain from this colony seems to proceed from an advantageous commerce, which is said to employ about seven thousand tons of shipping. The expenses of the civil list are supposed to be 25,000l. of which half is paid by Great Britain and the other by the provinces, from duties on the importation of spirits, wine, and a few other articles. The military establishment, with repairs of forts, &c. is stated at 100,000l.; and the like sum for presents to the savages, and salaries to officers employed among them for trade, &c. in Upper Canada. But the advantages of the commerce are thought to counterbalance these expenses.

Manners and Customs. The manners and customs of the settlers in Canada are considerably tinctured with the French gaiety and urbanity blended with the usual portion of vanity, which is however a far more laudable quality than avarice, which is destructive of every generous motive and noble exertion. The French women in Canada can generally read and write, and are thus superior to the men;

* Morse, 114.

† "The savages (says Mr. Pinkerton) may perhaps amount to 50,000." It may, I think, be doubted whether the whole savage population of the two Canadas exceed 22,000. B.

but both are sunk in ignorance and superstition, and blindly devoted to their priests.

LANGUAGE. They universally use the French language, English being restricted to the few British settlers.

QUEBEC. The chief town is Quebec, built on a lofty point of land on the north-west side of the great river St. Lawrence: which in the neighbourhood is sufficiently deep and spacious to float more than one hundred sail of the line. The upper town, on a rock of limestone, is of considerable natural strength, and well fortified; but the lower town towards the river is open to every attack. Montcalm's vain confidence, in marching out of the city, led to his destruction, while a siege must have been dissolved by the approach of winter, when it was impracticable to form any works: yet Quebec might, in the new procedures of war, yield, like Holland to a frozen campaign. A large garrison is maintained, but 5000 soldiers would be necessary to man the works. The inhabitants are supposed to be 10,000, about two thirds being French, and the presence of the governor, courts, and garrison, conspire to render it gay and lively. The lower town is mostly inhabited by traders and mariners. The houses are commonly of stone, small, ugly, and inconvenient; but the new part of the governor's house, for there is no citadel, is upon an improved plan. The monasteries are almost extinct; yet there are three nunneries. The market is well supplied; and the little carts are often drawn by dogs. The vicinity presents most sublime and beautiful scenery; and the falls of the river Montmorenci are particularly celebrated.

MONTREAL. Montreal is a neat town, on the east side of a considerable island, formed by the river St. Lawrence at its junction with the river Utawas, which is the boundary between Lower and Upper Canada, about 150 miles above Quebec. This is the utmost point to which ships can ascend from the sea; but several of the burden of 400 tons reach Montreal by a tedious and difficult navigation. This town contains about twelve hundred houses, and probably six thousand souls; with six churches, four of which are Roman Catholic, and four convents. The chief trade is in furs, which are thence sent to Canada for England. The North-West Company consists of merchants of Montreal. The canoes are chiefly employed on the Utawas, whence the fur traders proceed across to lake Winnipeg. Mr. Mackenzie was a partner in the North-West Company, which has considerably lessened the trade of that of Hudson's Bay. La Prairie is a village on the opposite side of the river to Montreal.

At the grand egress of the river St. Lawrence, on the lake Ontario, near what is called the lake of a thousand islands, stands the town of Kingston, more remarkable from its position than any other circumstance. The forts of Niagara and Detroit belong to the southern side of the boundary*. The little town of Trois Rivieres, or Three Rivers, stands between Quebec and Montreal, and is chiefly remarkable for the

* See Weld, vol ii. p. 64, &c. Kingston contains about a hundred houses, inhabited by emigrants from the United States, and there is a stone fort, erected in 1672. The trade in furs is considerable. The hamlet of Newark stands on the British side of the river Niagara, being the capital of Upper

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resort of the savages; but though it contain little more than two hundred and fifty houses, it is considered as the third town in British America*. Sorelle was founded in 1787 for the American loyalists but contains only one hundred scattered houses, it is at the distance of fifteen leagues from Montreal towards Quebec, and the chief business is ship-building.

Manufactures and Commerce. The principal exports are furs and peltries, with some fish, potash, and American ginseng†. The imports, are spirits, wines, tobacco, sugar, salt, and provisions for the troops. Except some linen, and course woolen cloths, manufactured articles are chiefly imported from England.

Climate and Seasons. Mr. Weld, who is a great admirer of ice, depicts the Canadian climate in the most favourable colours, and would persuade us, that though considerably further to the north, it is at least equal to that of New England. But even by his account the extremes of heat and cold are amazing; the thermometer in July and August rising to ninety-six, while in winter the mercury freezes‡. The snow begins in November, and in January, the frost is so intense, that it is impossible to be out of doors for any time, without the risk of what is called a frost-bite, which endangers the limb; and the warm intervals only increase the sensations and the jeopardy. But winter, as at Petersburg, is the season of amusement, and the sledges, drawn by one or two horses, afford a pleasant and speedy conveyance. Several stoves are placed in the hall, whence flues pass to the apartments; and there are double windows and doors. On going abroad the whole body is covered with furs, except the eyes and nose. In May the thaw generally comes suddenly, the ice on the river bursting with the noise of cannon, and its passageto the sea is terrific, especially when the pile of ice crashes against a rock. Spring is summer: and vegetation instantaneous. The month of September is one of the most pleasant||.

Canada; and though Detroit town and fort be assigned to the Americans, there is a British settlement at no great distance, on the opposite side of the river. Ib. 170.

* Weld, ii 11.

† Mr. Mackenzie has given an interesting history of the fur trade, which led to the inland discoveries in North America. In 1766, Curry penetrated as far as Fort Bourbon on the Saskashawin, or river Bourbon of the French. Peter Pond is said to have discovered the Slave lake about 1780. The North-West Company was formed in 1784 In 1798 the beaver skins exported were 106,000, and other furs in proportion. The French terms are generally retained. Mr. M. proposes, p. 409, that the Hudson's Bay Company should resign their monopoly, as being conducted on a narrow scale, and with little benefit to the public. The slow progress of discovery seems to evince the justice of his observation, and the map of North America privately engraved for their use 1740, would disgrace the knowledge of 1540, being perhaps the most remarkable monument of geographical ignorance that ever appeared. Mr. Burke, in his history of the American settlements, ii. 288, has expressed strong opposition to the monopoly of this company.

‡ This must not be credited with respect to any part of Canada. B.

|| An earthquake, 1663, is said to have overwhelmed a chain of free-stone mountains more than 300 miles long. Morse, p. 62, from the American Museum, iii. 292. It is to be wished that this fact were better substantiated;

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FACE OF THE COUNTRY. The face of the country is generally mountainous and woody; but there are savannas, and plains of great beauty, chiefly towards Upper Canada.

SOIL AND AGRICULTURE. In the lower province the soil mostly consists of a loose blackish earth of ten or twelve inches, incumbent on cold clay. This thin mould is however very fertile, and manure was seldom or never used by the French settlers, but of late marl has been employed, and is found in considerable quantities on the shores of the river St. Lawrence. A little tobacco is cultivated for private use, with many culinary vegetables, and considerable crops of grain, wheat being reckoned among the exports: a kind of vine is indigenous, but the grapes are sour, and little larger than currants*. Raspberries are also indigenous; and there are good currants and gooseberries. A great variety of trees are found in the forests; beech, oak, elm, ash, pine, sycamore, chesnut, walnut, &c. The sugar maple tree also abounds, and the sugar is generally used in the country. Mr. Weld points out some difficulties in the tenures of land, which ought to be removed, as in such a climate there is no occasion for a barrier against colonization.

RIVERS. The great river St. Lawrence has been already described in the general view North America.

UTAWAS. The Utawas is the most important of all its tributary streams, issuing from various lakes, towards the centre of Canada; its waters are of a bright greenish colour, while the St. Lawrence is muddy. Many rivers of smaller consequence flow into the river St. Lawrence from the north.

LAKES. The large lakes have been also already mentioned; there are many others, of which the enumeration would be tedious; and some difficulty arises from the want of any precise boundary in the north of Canada.

and such a scene could hardly have escaped the notice of recent travellers. Pinkerton.....Of this earthquake many memorials have been transmitted to us by the contemporary writers, Morton, Frezier, and others. Canada seems to have been the chief seat of its concussions, which were propagated from some point between the west and north, towards the south-east. In Canada many fountains and small rivers were dried up; the water of other streams became sulphurous, "and in some, the channel in which they ran before, was so altered, that it could not be distinguished." Two mountains, about half way beween Tadousac and Quebec, were shaken down, and the earth thus thrown down gave origin to a point of land, which extended into the river St. Lawrence, to the distance of half a quarter of a league. The island Aux Coudres became larger than it was before, and the channel in the river was much altered. Frezier's Voyage, p. 210, 211, Journal des Scavans, mai, 1678. New England and New York, were also violently shaken by this earthquake, the effects of which were experienced, "throughout an extent of three hundred leagues from east to west, and more than one hundred and fifty from north to south," the earth, the rivers, and the banks of the sea, being shaken with violence. B.

* Weld, i. 381. This kind of vine probably gave name to the Norwegian Vinland. Pinkerton. I take it to be the species which Linnæus denominates vitis vulpina. It has been proposed to name it vitis serotina, because it ripens its fruit very late in the season. Other species of vine, which produce excellent fruit, are common to many parts of Canada and the United States. B.

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Mountains. Nor have the mountains been sufficiently examined by any geologist, who could indicate their ranges, or illustrate their structure. The chief ridge seems to be in the northern part of the province, in a direction south-west and north-east, giving source to the many streams which flow south-east, while a few pass to Hudson's Bay. But there are many mountains between Quebec and the sea, while towards the Utawas only a few are scattered, and towards the south-west there are ample plains. The botany does not seem to differ very essentially from that of the United States, though it is highly probable that Canada contains many of the boreal plants of Europe and Asia, that are either unknown or less common within the limits of the union. We are not yet prepared to determine what are the peculiarities in the zoology of Canada. Neither the moose nor the beaver are exclusively restricted to this part of the continent, being both natives of the United States. That particular variety of the rein-deer, which is called the carabou or caraboo, is more properly an animal of Canada, than of the United States. The same remark applies to the American badger (ursus Labradorius), and to some other animals, for which the reader may consult with advantage Mr. Pennant's Arctic Zoology. Both the Canadas are infested with rattlesnakes, but these reptiles disappear in the higher latitudes, and are, in every part of the continent, less formidable than European writers imagine. The beautiful humming bird (trochilus colubris) is not uncommon at Quebec*, this and many other species of southern birds performing annual migrations to the northern parts of the country.

Mineralogy. The mineralogy is of little consequence; and even iron seems to be rare†. There are said to be lead mines which produce some silver‡; and it is probable that copper may be found, as it appears, in the south-west of lake Superior. Coal abounds in the isand of Cape Breton, but this valuable mineral has not been discovered in Canada. If so wide a territory were properly examined by skilful naturalists, which ought always to be a primary care with every government for the most advantageous positions of settlements, and that every advantage may be secured, it is highly probable that important discoveries might be made.

Natural Curiosities. Little is said of warm springs, or mineral waters; and the chief natural curiosities seem to be grand lakes, rivers, and cataracts. Among the latter, the celebrated falls of Niagara are chiefly on the side of Upper Canada, the river being there 600 yards wide, and the fall 142 feet. A small island lies between the falls; and that on the side of the United States is 350 yards wide, while the height is 163 feet: from the great fall a constant cloud ascends, which may sometimes be seen at the distance of thirty miles; and the whole scene is one of the most sublime in nature‖.

* Kalm, ii. 253.

† See Kalm, ii. 349, for an account of these veins near the bay of St. Paul, north-east of Quebec. There are only some grains of galena in a kind of spar.

‡ A fine magnetic sand is found in great abundance, along the shores of Lake Erie, Lake Ontario, &c. both in Canada and the United States. B.

‖ It is the opinion of many persons, that the falls were formerly at Queenstown, or the landing, near nine miles below their present situation; and that,

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NEW BRUNSWICK.

THE ancient province of Nova Scotia was granted by James I. to his secretary Sir William Alexander, afterwards earl of Stirling; and the origin of the title of baronets of Novascotia is well known. It was afterwards seized by the French, who seem indeed to have been the first possessors, and by whom it was called Acadié*; but it was surrendered to England by the treaty of Utrecht 1713. In 1784, as already stated, it was divided into two provinces, New Brunswick, and Novascotia. In the former there are two considerable bays, and a river of some length, called St. John's; while that of St. Croix divides New Brunswick from the District of Maine, belonging to the United States. The river of St. John is navigable for vessels of fifty tons, about sixty miles; and for boats about two hundred; the tide flowing about eighty. The fish are salmon, bass, and sturgeon; and the banks, enriched by the annual freshets, are often fertile, level, and covered with large trees. This river affords a common and near route to Quebec. There are many lakes, among which the Grand Lake is thirty miles long, and about nine broad. The great chain of Apalachian mountains passes on the north-west of this province, probably expiring at the gulf of St. Lawrence. The capital is Fredericktown on the river St. John, about ninety miles from its estuary. St. Ann's is almost opposite, and there are some other settlements near the bay of Fundi, with a fort called Howe. There is a tribe of savages called the Marechites, estimated at 140 fighting men. The chief products are timber and fish.

by gradually wearing away the rocks over which the water is precipitated, they are still advancing further up the outlet of Lake Erie. After an attentive examination of the falls, and of the country about Queenstown, I do not think there is any solid foundation for the hypothesis which I have mentioned, though it cannot be denied, that some change in the aspect of the cataract has taken place, since the first arrival of the Europeans in this part of the continent. B.

* See Lahontan, ii. 24.

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NOVASCOTIA.

NOVASCOTIA. THIS province is about 300 miles in length, by about eighty of medial breadth, being inferior in size to New Brunswick. There are several considerable rivers, among which that of Annapolis is navigable fifteen miles, for ships of 100 tons. The bay of Fundi, between New Brunswick and Novascotia, extends fifty leagues inland, the ebb and flowing of the tide being from forty-five to sixty feet.

HALIFAX. The capital is Halifax, on the bay of Chebucto, well situated for the fishery, with communications, by land and water, with other parts of this province, and New Brunswick*. There is a good harbour, where a small squadron of ships of war, employed in protecting the fishing vessels, is laid up in the winter. The town is entrenched, with forts of timber, and is said to contain fifteen or sixteen thousand inhabitants, a superior population to that of Quebec. Shelburn, towards the south-west, once contained 600 families: Guisberry about 250. The harbour of Annapolis is excellent; but it is an inconsiderable hamlet. During a great part of the year the air is foggy and unhealthy; and for four or five months intensely cold. There are many forests, and the soil is generally thin and barren, though fertile on the banks of the rivers, in grass, hemp and flax; but supplies of grain are sent from England. The Micmacs, an Indian tribe of about 300 fighters, dwell to the east of Halifax. Britain sends to these provinces linen and woolen cloths, and other articles to the amount of about 30,000*l.*; and receives timber and fish worth about 50,000*l.* The chief fishery is that of cod on the Cape Sable coast. Near Cape Canco there are remarkable cliffs of white gypsum, or plaster of Paris. About twenty-three leagues from that cape, is the Isle de Sable, or of Sand, consisting wholly of that valuable substance, mixed with white transparent stones, the hills being milk-white cones, and some 146 feet above the sea. This strange isle has ponds of fresh water; with junipers, blueberries, and cranberries, and some grass and vetches, which serve to support a few horses, cows, and hogs. The bay of Fundi presents an infinite variety of picturesque and sublime scenery; and the Bore rises to the height of seventy feet†.

* Morse, 120.

† Pennant, A. Z. cccxi.

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ISLAND OF CAPE BRETON.

CAPE BRETON. THIS island is attached to the province of Lower Canada, though divided from Novascotia, only by a strait of one mile in breadth. It is about a hundred miles in length; and according to the French authors was discovered at a very early period, about A. D. 1500, by the Normans and Bretons, who navigated these seas; and being supposed a part of the continent was called Cape Breton, a name absurdly retained. They did not however take possession of it till 1713, when they erected Fort Dauphin: the harbour being found difficult, Louisburg was built in 1720, the settlers being chiefly from Europe, as the Acadians, or French of Novascotia, did not choose to leave that country. In 1735 Cape Breton was taken by some troops from New England, and has since remained subject to the British crown. The climate is cold and foggy, not only from the proximity of Newfoundland, but from numerous lakes and forests. The soil is chiefly mere moss, and has been found unfit for agriculture. The chief towns are Sidney and Louisburg, the whole inhabitants of the isle do not exceed one thousand. The fur trade is inconsiderable, but the fishery very important, this island being esteemed the chief seat; and the value of this trade, while in the French possession, was computed at a million sterling. There is a very extensive bed of coal in this island, in a horizontal direction*, not more than six or eight feet below the surface; but it has been chiefly used as ballast: in one of the pits a fire was kindled by accident, and remains unextinguished.

ST. JOHN. The island of St. John is at no great distance to the west of Cape Breton, being about sixty miles in length by thirty in breadth, and is attached to the province of Novascotia. The French inhabitants, about 4,000 surrendered with Cape Breton, in 1745. It is said to be fertile, with several streams. A lieutenant-governor resides at Charlotte town; and the inhabitants of the island are computed at five thousand.

* In the western parts of Pennsylvania, Virginia, &c. almost all the coal hitherto discovered, is disposed in a horizontal direction. B.

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NEWFOUNDLAND.

NEWFOUNDLAND. THIS island was discovered by Sebastian Cabot in 1496*, who also founded the prior claim of England to the North American shores as far south as Florida. This discovery, like that of Columbus and others, was unintentional, the design being merely to penetrate to the East Indies. Those authors who wonder that no colonies were sent, only shew their ignorance of the intentions of the first navigators; and at that period there was not one man in Europe, who could have formed the smallest idea of the benefits of a colony. It was the success of the Spanish colonies, allured by gold alone, that, towards the end of the sixteenth century, enlarged the ideas of mankind; but even then, Raleigh's transcendent mind held out gold to all his followers, as the sole inducement. The island of Newfoundland is about 320 miles in length and breadth, the shape approaching to a triangle. It seems to be rather hilly than mountainous, with woods of birch, small pine, and fir, yet on the south-west side there are lofty head-lands. The country has scarcely been penetrated above thirty miles; but there are numerous ponds and morasses, with some dry barrens.

FISHERY. The great fishery on the banks of Newfoundland begins about the 10th of May, and continues till the end of September. The cod is either dried for the Mediterranean: or what are called mud-fish, barrelled up in a pickle of salt, for the English market. These banks and the island are environed with constant fog, or snow and sleet, the former supposed by some to be occasioned by the superior warmth of the gulf stream from the West Indies. The fishery is computed to yield about 300,000*l.* a year, from the cod sold in the catholic countries. The island of Newfoundland, after many disputes with the French, was ceded to England 1713, the French having permission to dry their nets on the northern shores; and in 1763 it was stipulated that they might fish in the gulf of St. Laurence; and the small isles of St. Pierre and Miquelon were ceded to them. The French, by the treaty 1783, were to enjoy their fisheries on the northern and western

* I think this is an error. The map under Cabot's picture, in the Privy gallery, places this voyage in 1497; and Smith concurs in this date. Stow places it in 1498. The chronology of these times, so far as respects the discovery of the countries of America, is very contradictory, and seems well worthy of the attention of some learned man. B.

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coasts, the inhabitants of the United States having the same privileges as before their independence; and the preliminaries of October 1801, confirm the privileges granted to the French.

The chief towns are St John on the south-east with Placentia in the south, and Bonavista in the east; but not above a thousand families remain during the winter. In the spring a small squadron is sent to protect the fisheries and settlements, the admiral being also governor of the island, its sole consequence depending on the fishery; and there are two lieutenant governors, one at St. John's, another at Placentia.*

These dreary shores are strongly contrasted by the Bermudas or Sommer islands, lying almost at an equal distance between Nova Scotia and the West Indies: but as they are nearer to the coast of Carolina than to any other land, it seems more proper to arrange them here than under any other division.

THE BERMUDAS, OR SOMMER ISLANDS.

THEY are four in number, and were discovered by the Spaniards under John Bermudast, in 1527, but being afterwards neglected by them, they were again disclosed by the shipwreck of Sir George Sommer in 1609, which event seems to have induced Shakspeare to describe them as ever *vexed* with storms. Another poet, Waller, who resided there some time, on his being condemned for a plot against the parliament in 1643, describes them in very different colours, as enjoying a perpetual spring. In 1725 the benevolent and eccentric bishop Berkeley proposed to erect a college in these islands for the conversion of the savage Americans! Of these little islands the chief is that called St. George, with a capital town of the same name, containing about five hundred houses, built of a soft free-stone, probably like that of Bath; the inhabitants being about three thousand, and those of all the islands about nine thousand. There is a Governor, Council, and General Assembly, the religion being that of the church of England. The people are chiefly occupied in building light ships of their cedars, in which they trade to North America

* The isle of Anticosti, at the mouth of the St Lawrence, is full of rocks, and has no harbour, but is covered with wood; and excellent cod is found on the shores.

† More properly Bermudez. B.

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and the West Indies. It would appear that these remote isles were uninhabited when settled by the English, but a good history and description of the Bermudas might afford a pleasing addition to the geographical library*. Mr. Morse says that the blacks are here twice as numerous as the whites; and that a great part of their trade consists in carrying salt to America. The women are said to be handsome, and both sexes fond of dress, which is perhaps more laudable than the opposite extreme†.

* In the Novus Orbis of De Laet (p. 27.....30.) there is some interesting information concerning these islands. B.

† From the chart by Lempriere, 1797, it appears that the largest island called Bermuda resembles a hook, the great sound fronting the north. The length is about thirty-nve geographical miles, the breadth seldom two. The other isles are St. George's, St. David's, and Somerset; with several islets, and numerous rocks. They are also frequented by whale-fishers.

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NATIVE TRIBES,

AND

UNCONQUERED COUNTRIES.

THE arrangement of this division shall chiefly pursue the order of the discoveries from the east towards the west. On this plan, Greenland shall be followed by Labrador, and the territory belonging to the Hudson's Bay company. Some account may be then given of the central parts and tribes, which shall be followed by the discoveries of the western coast and islands by the Russians, Cook, Vancouver, La Perouse, and other navigators, and by the late enterprising traveller Mackenzie.

GREENLAND.

THE discovery of this extensive region, which, whether continental or insular, must ever continue to be regarded as belonging to North America, has been already mentioned as having been effected by the people of Iceland in the tenth century, the distance, according to the best maps, being about 8° of longitude in latitude 66°, or nearly 200 geograpical miles; but some maps reduce it to 5°, or not more than 130 geographical miles*. The intercourse between this colony

* The industrious Torfæus, in his *Groenlandia Antiqua*, has collected every memorial that could be found concerning ancient Greenland, and has illus-

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and Denmark was maintained till the beginning of the fifteenth century, the last of seventeen bishops being named in 1406; and in that century by the gradual increase of the arctic ice, the colony appears to have been completely imprisoned by the frozen ocean, while on the west a range of impassable mountains and plains, covered with perpetual ice, precluded all access. The ancient settlement contained several churches and monasteries, the names and positions of which may be traced in the map of Torfæus, from which it would seem that the colony extended over about 200 miles in the south-east extremity. On the west some ruins of churches have also been discovered. In more recent times, the western coast was chiefly explored by Davis, and other English navigators, but there was no attempt to settle any colony. A pious Norwegian clergyman, named Egede, having probably read the book of Torfæus, published in 1715 was deeply impressed with the melancholy situation of this colony, if it should be found to exist; and in 1721 proceeded to the western shore, where he continued till 1735, preaching the gospel to the natives, his benevolent example having been since followed by several missionaries. The sect called Moravians began their settlements about thirty years after, being chiefly those of New Hernhuth, and Lichtenfels. It is said that the country is inhabited as far as 76°, but the Danish and Moravian settlements are chiefly in the south-west, though at one time there appear to have been a factory as far north as 73°. The natives have no conception of what we call Baffin's Bay, but say that in the north of their country there is a narrow strait which divides it from the continent of America*.

This dreary country may be said to consist of rocks, ice, and snow; but in the southern parts there are some small junipers, willows, and birch. There are rein-deer, and some dogs resembling wolves, with arctic foxes, and polar bears. Hares are common, and the walrus, and five kinds of seals frequent the shores. The birds, particularly sea and water fowl, are tolerably numerous, as are the fish, and the insects exceed ninety.

What is called the *ice blink* is an amazing congeries of ice, at the mouth of an inlet, the splendour of which is discerned at the distance of many leagues. It is said to extend in magnificent arches for about twenty-four miles. The short summer is very warm, but foggy; and the northern lights diversify the gloom of winter. What is called the frost smoke bursts from cracks in the frozen ocean. The natives are short, with long black hair, small eyes, and flat faces, being a branch of the Iskimos, or American Samoieds: it is supposed that they do not

trated the Danish settlements with a map in which the nearest coast is supposed to be at least 200 geographical miles from Iceland, and distinguished by the lofty mountains called Hvitserk and Blaserk. It was reported in the old accounts that the mountain Snoefell in Iceland, and Hvitserk in Greenland, could be seen from the middle of this channel; but this is a doubtful tradition. See the valuable voyages by order of the French king in 1771 and 1772, for the illustration of various provinces in navigation and geography; Paris, 1778, 4to. i. 264. ii. 244. Some mountains of Greenland may, however be seen at the distance of forty or sixty leagues. Cranz, vol. i. p. 8.

* Mr. Pennant, A. Z. ccxcii, observes that the Yarmouth whale fishers, who proceed as far as Disco bay, give no intelligence concerning Baffin's bay.

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now exceed ten thousand, the number having been greatly reduced by the amall pox. Their cones, in which one man proceeds to kill seals, are of a singular construction, and have sometimes been wafted as far as the Orkneys. The highest mountains are on the west side; and the three pinnacles of what is called the Stag's Horn are visible from sea at the distance of forty or sixty leagues. Crantz observes that the rocks are very full of clefts, commonly perpendicular, and seldom wider than half a yard, filled with spar, quartz, talc, and garnets. The rocks are generally rather vertical or little inclined, consisting of granite, with some sand stone, and lapis olaris. Our author's imperfect mineralogy also indicates micaceous schistus, coarse marble, and serpentine, with asbestos and amianthus, crystals, and black schorl. It is said that fluate of argill, a new substance, has been recently found in Greenland; perhaps this is the soft transparent stone of Crantz. The lapis olaris is of singular utility in Greenland, and the north of America, being used for lamps and culinary utensils. The soil consists of unfertile clay or sand. The winter is very severe; and the rocks often burst by the intensity of the frost. Above 66° the sun does not set in the longest days, and at 64° it is not four hours beneath the horizon.

LABRADOR.

THIS large extent of coast was so named by the Portuguese navigator who made the first discovery. In the inland parts there were American savages, and on the coasts Iskimos: but the former have mostly retired to the south, and even the latter seem gradually to withdraw: neither people had the ingenuity of the Laplanders. There were here only a few factories, till the Moravian clergy formed little settlements, particularly at Nain, about 1764. To these missionaries we are indebted for the discovery of that elegant iridescent felspar, called the Labrador stone. It is said to have been first discovered in sailing through some lakes*, where its bright hues were reflected from the water. The most rare colour is the scarlet. Mr. Cartwright, who resided at intervals nearly sixteen years in this desolate country, has published a minute and prolix journal, which however gives a curious picture of its state, and appearances along the coast, for the inland

* A large inland sea, or lake, is laid down by D'Anville, which has recently been copied under the appellation of a New Sea.

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parts have never been explored*. His Indians seem to be Iskimos, and their manners are very filthy. He remarks that the grouse not only change their colour in the winter, but that they then gain a large addition of white feathers. The porcupines resemble the beaver in size and shape; and he observed wolvereens†. He who wishes to study the manners of bears may here find ample satisfaction. At a cataract, surrounded with elders, spruces, firs, larches, birch, and aspin, many salmon ascend, and the bears assemble in numbers to catch their favourite prey. Some dive after the fish, and do not appear till at the distance of seventy or eighty yards. Others seem to be loungers, who only come to see what is going forwards, and to enjoy the promenade and the spectacle. Our author counted thirty-two white bears, and three black ones‡. Rein deer also abound, and their venison is excellent. Mr. Cartwright contradicts the received accounts of the beaver, asserting that he never eats fish nor any animal food, but lives on the leaves and bark of such trees and shrubs, as have not a resinous juice, and the roots of the water lily||. Their sagacity is not so great as is generally supposed, but there is something so singular in their erect movements, that an illiterate observer pronounced them to be "enchanted Christians**." Even the peaceable Iskimos are liable to savage contests, and about 1736, in a quarrel concerning a young woman, a furious slaughter arose, in which neither sex nor age were spared. At the close of his third volume, Mr. Cartwright gives a general idea of the country, and a thermometrical journal. So far as discovered, Labrador is generally hilly, and even mountainous; but the southern parts might be improved, though it would be difficult to guard against the white bears and wolves; and cattle must be housed for nine months in the year. The eastern coast exhibits a most barren and iron bound appearance, the rocky mountains rising suddenly from the sea, with spots of black peat earth, producing stunted plants. Rivers, brooks, lakes, pools, and ponds, are abundant, rich in fish, and frequented by innumerable birds. Though springs be rare, the waters being mostly dissolved snow, yet swelled throats are unknown, though frequent in the alpine countries of Europe and Asia††. The eastern coast also presents thousands of islands, covered with flocks of sea fowl, particularly eider ducks; and in the larger isles there are deer, foxes, and hares. The fish are, salmon, trout, pike, barbel, eels, and others. Inland, the air is milder; there are many trees, and some symptoms of fertility. The plants are, wild celery, scurvy-grass, reddocks, and Indian sallad. There are some appearances of iron, and the Iskimos now collect the Labrador spar on the shores of the sea and lakes, for the rocks have not been discovered. Perhaps this spar was the shining stone brought

* Newark, 1792, 3 vols. 4to.
† Ib. i. 278 ii. 58.
‡ Ib 346.
|| iii. 24.

** It is now well known in the United States, that the beaver lives almost exclusively upon vegetable matters, but it is believed to be a fact, that he also eats certain animal matters, such as small crabs and muscles. B.

†† The swelled throat, or goitre, is not an uncommon occurrence in some parts of the two Canadas, and in various parts of the United States. Whatever may be the cause of this singular disease, it is certain that it does not owe its origin to snow-water. B.

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from Labrador by one of our early navigators, as a specimen of gold ore. The birds are common to arctic regions, and the animals are mostly of the fur kind, in which trade our author was engaged. The natives are mountaineers and Iskimos, the former resembling gypsies, with somewhat of French features from a mixture of Canadian blood. They live chiefly on rein deer, and also kill foxes, martins, and beavers. They live in wigwams, a kind of tents, covered with deer skin and birch rind, and are a sort of Roman Catholics, being anxious to visit the priests at Quebec. The Iskimos are the same people with the Greenlanders, whose manners are minutely described by Crantz. They use sledges drawn by dogs, as in Asia. Remains of seals and oily substances have a remarkable effect on the ground, so as to produce rich crops of grass, on spots formerly only sprinkled with heath.

HUDSON'S BAY.

Hudson's Bay. The inland sea commonly called Hudson's Bay was explored in 1610; and a charter for planting and improving the country, and carrying on trade, was granted to a company in 1670. The Hudson's Bay Company has since retained a claim to most extensive territories, on the west, south, and east, of that inland sea, supposed to extend from 70° to 115°, and allowing the degree only thirty miles, the length will be 1350 geographical miles, and the medial breadth about 350. This vast extent of ice and snow is however of little consequence considered in itself; and it is not understood that the company gain great wealth. An able writer has also defended them against the invidious charge of obstructing geographical knowledge for the sake of commercial monopoly.* The journey of Mr. Hearne is indeed a manifest though tardy proof of the contrary. The annual exports are about 16,000l.; and the returns, which yield a considerable revenue to government, perhaps amount to 30,000l. The north-west Company lately established at Montreal, has also considerably reduced the profits; but an enquiry into the state of this company, and of their territories, might be an object of some importance, and might perhaps lead to great improvements in the mode of conducting the commerce, and deriving every possible advantage from these extensive territories and seas. The establishment of factories, here called forts, and which

* Introduction to Cook's last Voyage.

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sometimes contain small garrisons, and other peculiar circumstances, seem more adapted to the powers of a commercial company, than of private traders; and even the example and success of the North-west Company seem to authorize that of Hudson's Bay. But they ought strictly to attend to the character of their servants, who, as Mr. Cartwright observes, will sometimes kill an Indian in preference to a deer.

The regions around Hudson's Bay, and that of Labrador, have by a miserable compliment to the parent country, been sometimes called New Britain, a name not admitted in French or English maps. The parts on the west of Hudson's Bay have also been called New North and South Wales; while that on the east is styled East Main. In the south, James's Bay stretches inland about 300 miles by about 150 in breadth; and the most valuable settlements are in that vicinity, as Albany fort, Moose fort, and East Main factory. Further to the south, and on the confines of Upper Canada, are Brunswick house, Frederick house; and some others, which, perhaps, belong to the North-west company. In the north, Severn house is at the mouth of a large river, which seems to flow from the lake of Winnipic. York fort stands on Nelson river; and still further to the north is Churchill fort, which seems the furthest settlement in that direction.* To the west the Hudson's Bay company had extended little further than Hudson's house; while the superior spirit of the North-west company has nearly approached the Pacific.† The most important rivers are the Nelson or Saskashawin, and the Severn; the comparative course of the latter scarcely exceeding 400 British miles, but of great breadth and depth. In the south the Albany, Moose, Abitib, and Harricana, are the most considerable; but all the rivers are impeded with falls and shoals. Near that singular inlet called Chesterfield there are many lakes, but the barbarous names would neither edify nor entertain the reader; nor is it likely that they should ever become memorable in natural or civil history. The sea of Hudson commonly presents bold rocky shores; but at intervals there are marshes and large beaches. There are several high islands, the largest of which in the north has been little explored; and in what is called Baffin's Bay (if such a sea exist,) some maps and charts admit a very large central island called James Island, which others entirely reject.

Even in latitude 57° the winters are extremely severe; the ice on the rivers is eight feet thick, and brandy coagulates. The rocks burst with a horrible noise, equal to that of heavy artillery, and the splinters are thrown to an amazing distance.‡ Mock suns, and haloes, are not unfrequent; and the sun rises and sets with a large cone of yellowish light. The Aurora borealis diffuses a variegated splendour, which equals that of the full moon; and the stars sparkle with fiery redness. The fish in Hudson sea are far from numerous; and the whale fishery

* Churchill fort was built in 1715. It is also called Fort Prince of Wales.

† The boundary between the Hudson's Bay Company and Canada is understood to follow the ridge that gives source to the rivers flowing north and south; as far as Lake Annipeg; whence latitude 49 degrees is said to form the limit.

‡ Pennant, A. Z. ccxcvi.

has been attempted without success. There are few shell fish; and the quadrupeds and birds correspond with those of Labrador and Canada. The northern indigenes are Iskimos; but there are other savages in the south: and the factories are visited by several tribes.*

CENTRAL PARTS.

Till the journey of Mr. Hearne, an officer of the Hudson's Bay Company, in 1771, and the more difficult and laborious enterprizes of Mr. Mackenzie in 1789 and 1793; little was known concerning the interior parts of North America. In 1746 D'Anville lays down, with considerable accuracy, the Sea of Canada, or the three great conjunct lakes. He closes with the Lake of the Woods; and a river (now called Winipic) runs to the north, while from the same lake a large river proceeds to the west, "discovered by a savage called Ochagac," but which does not exist. Not far to the south of the Lake of the Woods he places the Missisippi, but says that the sources are unknown; they are now marked on that very spot. After a few other positions in that vicinity, he declares his ignorance of the country further to the west. Thus the great lakes of Winnipic, of the Hills, and the Slave lake, with the immense ranges of mountains, and other important features, were unknown to this able geographer, who was master of all the knowledge of his time. The lake of Winnipic appears to have been disclosed to Europern notice about 1760, by furriers from Canada; and much was said of an imaginary large river called the Bourbon; which may however have been the Saskashawin.

Hearne's Journey. Mr. Hearne performed his journies in the years 1769—1772; but his book did not appear till 1795. He proceeded from fort Prince of Wales, or Churchill, and explored a group of lakes, called Doobant and other names, near Chesterfield

* The tenth chapter of Mr. Hearne's journey may be consulted for an account of the animals and vegetables. A dwarf larch is here called the juniper. The wisha-capucca is called American tea, being drank in infusion. Mr. Hearne observes, p. 51, that the American savages always enjoy, and even laugh at, the sight of distress or pain. Ulloa marks it as characteristic of those in South America, that they inflict the greatest cruelties with perfect indifference. On any dangerous illness, p 205. the patient is left to perish alone It is a favourite pastime of the women to kill a captive woman or child, p. 206.

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inlet; and, further to the west, a lake of great extent, which he calls Athapuscow, the centre being in longitude 125°, latitude 62°; being evidently the Slave lake of Mr. Mackenzie, in the same latitude but longitude 115°. The Copper Mine river, which Mr. Hearne lays down in longitude 120°, is by Mr. Arrowsmith assigned to longitude 113°. This river flowing into the Arctic ocean was the most curious discovery of Mr. Hearne, whose journey's seemed sufficiently to demonstrate that no north-west passage was to be expected. In his preface he expresses his opinion that the Copper River probably flows into an inland sea like that of Hudson;* which may also be the case with Mackenzie's river. Mr. Hearne's adventures on his new route are amusing and interesting. He met with many herds of musk cattle, a curious species described and engraved by Mr. Pennant in his Arctic Zoology. On the 14th of July 1771 he at length arrived at the Copper river, where the savages who attended him murdered, in a shocking manner, some Iskimo families; and on the 17th he was within sight of the sea. "I therefore instantly set about commencing my survey, and pursued it to the mouth of the river; which I found all the way so full of shoals and falls, that it was not navigable even for a boat, and that it emptied itself into the sea over a ridge or bar. The tide was then out; but I judged from the marks which I saw on the edge of the ice, that it flowed about twelve or fourteen feet, which will only reach a little way within the river's mouth. The tide being out, the water in the river was perfectly fresh; but I am certain of its being the sea, or some branch of it, by the quantity of whale bone and seal-skins which the iskimos had at their tents, and also by the number of seals which I saw on the ice. At the mouth of the river the sea is full of islands and shoals, as far as I could see with the assistance of a good pocket telescope. The ice was not then broke up, but was melted away for about three quarters of a mile from the main shore, and to a little distance round the islands and shoals†." He found the Iskimos here of a dirty copper colour, and rather shorter in stature than those to the south. Even here the kettles are made of lapis ollaris, of a mixed brown and white; and their hatchets and knives are of copper. The dogs have sharp erect ears, sharp noses, and bushy tails, being a fine breed of that sort. Many kinds of sea-fowl were observed; and in the ponds and marshes swans, geese, curlews, and plovers. The quadrupeds are musk cattle, rein-deer, bears, wolves, wolvereens, foxes, alpine hares, squirrels, ermines, mice. Mr. Hearne afterwards visited one of the copper mines, about thirty miles south east from the mouth of the river, being merely a hill which seems to have been rent by an earthquake, or perhaps by subterranean water. The copper is found in lumps, and is beaten out by the help of fire and two stones. Upon his return Mr. Hearne passed further to the west, and on the 24th of December 1771 he arrived at the north side of the great lake of Athapuscow‡, where our traveller observed a rustling noise to proceed from

* Page vii.

† Ib. 162. Why not taste the water? It might have been a large fresh water lake. Seals are common in the sea of Baikal, and the whalebone may have been procured in barter. The supposed tide is not unknown in high winds upon the southern lakes.

‡ Rather *Athabasca*.

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the northern lights, and he confutes several popular tales concerning the beaver. The lake of Athapuscow is very full of islands, filled with tall trees like masts, as appears from his curious view of a part of it. The natives reported it to be 120 leagues in length, from east to west; and twenty wide. It is stored with quantities of fish, pike, trout, perch, barbel, and two sorts called by the natives tittameg and methy. The northern shore consists of confused rocks and hills, but the southern is level and beautiful; and there are many wild cattle and moose deer, the former, particularly the bulls, being larger than the English black cattle. The hunch on the back is an elongation of the wither bones, according to Mr. Hearne. Proceeding southward he arrived at the great Athapuscow river, which he found about two miles in breadth, being evidently the Slave river of Mr. Mackenzie. Our traveller then passed eastward without any remarkable discovery, and arrived at Fort Prince of Wales 30th June 1772.

Central Parts. Mr. Mackenzie's journies were of yet more consequence. In June 1789 he embarked in a canoe at fort Chepiwian, on the south of the lake of the hills, and proceeded along the Slave river, to the Slave lake, whence he entered a river now called after his own name, till he reached the Arctic ocean. The slave river he describes as very considerable, and says it received its name from an Indian tribe, called Slaves merely from their extreme ferocity*. The Slave lake he found covered with ice in the month of June, and the chief fish were carp, white fish, trout, and pike. He justly remarked it as extraordinary that land, covered with spruce, pine, and white birch, when wasted by fire produces nothing but poplars, where none before appeared. The river called after his name is sometimes fifty fathoms in depth, though not above three hundred yards in breadth. On the 11th of July the sun remained all night considerably above the horizon; and soon after he seems to have reached the sea; but our traveller's account is here not a little perplexed. It appears however that his river has a wide estuary, with many islands, one of which Mr. Mackenzie called Whale Island, as he here saw some whales as large as his canoe, and larger than the largest porpoise†. Such fish are however never observed in lakes; and there seems to be sufficient indications that he had reached the sea. Though so far to the north, there seem to be other savages besides Iskimos; and it would appear from their report that there is another large river on the western side of the Rocky Mountains, which also joins the Arctic Ocean‡. On his return, Mr. Mackenzie observed petroleum, or rather maltha, and a large bed of coal on fire; and on the 12th September 1789 our author finished his first voyage, which had occupied one hundred and two days. A complete confirmation thence arises that there is no northern communication between the Atlantic and the Pacific, except at so high a latitude that it must be impeded by perpetual ice.

Equally important and interesting was Mr. Mackenzie's second voyage, for, though inland, the term is proper, as both were conducted on large rivers, by means of canoes. Our enterprising traveller left

* The appellation and its source are alike ridiculous; and a new nomenclature is wanted.

† Mackenzie's Voyages, London, 1801, 4to. p. 64.

‡ Page 83.

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fort Chepiwian on the 10th October 1792, and proceeded up the Peace river, or Unjiga, in a south-west direction, till he reached a high land beyond the Stoney or Rocky Mountains, the height of which he computes at 817 yards. After transporting their canoe, with some difficulty, they embarked on a small river on the other side, which soon brought them into the river Oregan, Columbia, or the Great River of the West, the origin and course of which were before totally misunderstood. It is to be regretted that he did not pursue this river to its mouth: but after proceeding a considerable way he returned against the stream, and afterwards travelled to the Pacific ocean by land; and reached one of the numerous inlets lat. 52° 20′, by Mr. Arrowsmith's map of the expedition. His adventures and difficulties on this new route, are striking and singular, and will amply reward the reader's curiosity. On the west of the Unjiga beautiful scenery was observed, interspersed with hill and lawn, with groves of poplars, and enlivened with vast herds of elks on the uplands, and of buffaloes on the plains. The last so much abound, that in some places the country resembles a stall yard. That fierce species called the grizzly bear was also seen. The Unjiga is sometimes from four to eight hundred yards wide, and the cold was often extreme, rather from the height of the general level than of the mountains, which does not exceed 1500 feet. Among the birds observed were blue jays, yellow birds, and beautiful humming birds. Beavers are common, and tracks of moose deer were remarked. Where they reached the Oregan, it was about 200 yards wide. Towards the Pacific the natives are fairer than in the other parts of North America, and one man was at leat six feet four inches in height. Their eyes are not dark like those of the other Indians, but grey with a tinge of red. The men wear only a robe made of the bark of the cedar tree, rendered as fine as hemp, sometimes with borders of red and yellow threads; and the women add a short apron. Some of their canoes are forty-five feet in length, the gun-wale being inlaid with the teeth of the sea otter, not with human teeth, as Captain Cook supposed. On the 20th of July 1793, Mr. Mackenzie reached an arm of the sea where the tide was abated, and had left a large space covered with sea-weed*. In September 1793 he returned to fort Chepiwian, after an absence of eleven months.

Remarks. These voyages having considerably improved the geography of North America, it was thought proper to narrate them at some length. It is to be regretted that some obscurity arises from the want of a distinct nomenclature, and the equivocal use or abuse of some of the appellations. Thus the Athapusco lake of Hearne is undoubtedly the Slave Lake of Pond, who is said to have been the first discoverer, and of Mackenzie; while the last seems to avoid that name, which is indeed banished from his maps, or confined to a small pool at the west end of the Lake of the Hills, which last some suppose to be the genuine Athapusco. In like manner there are three lakes, called by the same name of Winnipeg. Does this strange confusion, unknown to the geography of any other country, arise from the natives, from the inattention of the relators, or from commercial jealousy,

* Page 341.

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which would obscure or restrict the discoveries of other traders*? However this be, from these and other discoveries communicated by officers of the Hudson's Bay Company, the geography of North America begins to open with more clearness, as may be judged from Mr. Arrowsmith's last map, 1802. The large northern lakes are now laid down with superior accuracy

River Unjiga. The great river Unjiga, after penetrating the western range of mountains, flows north-east towards the Lake of the Hills, whence it receives a short but large stream; and being afterwards absurdly enough styled the Slave River, it bends north-west to the great Slave Lake, whence it issues by the name of Mackenzie's river. Such at least is Mr. Mackenzie's idea†; and, if accepted, the name of Unjiga should be retained to its egress into the arctic ocean, after a comparative course of about 1700 British miles.

Saskashawin. Next in consequence is the Saskashawin, rising on the eastern side of the great range, and passing east to the great lake of Winnipic, whence it again issues under the name of Nelson river, and falls into Hudson's Bay, after a comparative course of more than 1000 British miles‡.

Oregan. A third great river now tolerably ascertained is the Oregan, or Columbia, also called by the natives, Tacoutche Tesse, whose course is now described as being to the south, instead of the west, and about 700 British miles in length. There are doubtless other important rivers towards the west: and a considerable one, as before mentioned, seems to join the arctic ocean.

Missouri. The genuine sources of the Missouri, erroneously‖ by the savages called the Missisippi, from the least important

* According to Mr. Mackenzie, p. 122, the word *athabasca*, in the language of the Knistineaux, implies a flat, low, swampy country, subject to inundations; but he has not explained the original name of the Slave Lake. The native words are however of such a prodigious length, that it is often proper to drop them, but they ought to be shortened or exchanged for names that are proper and expressive, while the new appellations are often mean or ridiculous, and such as never occur in Africa or Spanish America. Such are those of the Indian tribes *Fall, Blackfoot, Blood, Island, Beaver, Copper, Strong-bow, Mountain, Hare, Dog-ribbed*, &c. &c. other unmeaning denominations are, *Rocky* or *Stoney Mountains*, as if there were any mountains without rocks or stones, *Slave* Lake, Lake of the *Hills*, &c. These beautiful terms pass from the French furriers of Canada into the page of geography! What would Milton say, who has often melodized his poetry with sonorous geographical appellations? Can any poet, or classical author, use the poor and distorted nomenclature of the Pacific, or of North America? Pinkerton. See the note to p. 476. E.

† P. 216, 387.

‡ The river Severn also seems to flow from the large lake of Winnipic, but the Saskashawin, in the course above-mentioned, would appear to have been the river Bourbon of the French, and it is said that the Severn flows *to* the lake of Winnipic, from a small lake which also sends a stream to the sea.

‖ Why erroneously? So far as I can learn, the name Missisippi (or something like this) was only applied to the river above and below the junction of the great western branch, long known by the name of Missouri. I am not certain that

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stream, seem also to be clearly evidenced, from a journey of Mr. Fidler in the service of the Hudson's Bay Company; a discovery which, as already explained, adds greatly to the length of that grand and interesting river. The real direction and uniform extent of the great western range of mountains, seem also to be clearly delineated.

These observations were demanded by the present progressive state of the geography of North America. In a more immediate view of the central parts of this division of the new continent, it must not be forgotten, that they are the seats of many native and unconquered tribes, whose manners have been so frequently described by a host of travellers, that little needs be said in a work of this limited nature. Their modes of hunting and warfare, their extreme cruelty towards their prisoners, the singularities of scalping, and the use of the calumet are sufficiently known*. A more difficult topic would be an enumeration of the various tribes; and a classification according to their languages.

By a strange abuse of terms we speak familiarly of the savage *nations* of North America, while few of these pretended *nations* can aspire to the name of a tribe, and the term clan, or even family, would be more appropriate†. The enumeration of these clans would be tedious; and a list of four hundred barbarous names would little interest the reader, except they could be classed according to languages. But a few remarks on the most noted tribes must not be omitted.

Five Nations. The five nations of the English writers are the Iroquis of the French, being the Mohawks, Oneydoes, Onondagas, Cayugas, and Sennekas; five clans joined in an old confederacy of offence and defence‡. The Mohawks were on the south of the river so called, in the province of New York; while the others extended towards the lake Ontario. The Hurons were on the east of the lake of that name‖.

Natches. But, after the Mexicans, the chief tribe in North America was that of the Natches, near the mouth of the Missisippi, whose worship of the sun and other peculiarities, have been illustrated

any advantage is gained by Mr. Pinkerton's innovation; and I think it more probable, that the two rivers will retain the names by which they have long been known. B.

* The feast of the dead has been described by Charlevoix and Lafitau. At this shocking solemnity the putrifying bodies are uncovered and exposed The same practice prevails in Patagonia; and seems (in the opinion of Mr. Pinkerton) peculiar to Africa and America

† Mr Adair's history of the American Indians, London, 1775, 4to. is composed on the system, that the Indians descended from the Israelites; and a few curious facts are rendered doubtful by the author's propensity to hypothesis.

‡ Colden, p. i. Pinkerton....The Tuscaroras, who now form a sixth tribe, joined the league early in the eighteenth century. B.

‖ The pretended Doegg Indians, at first said to have been discovered in Carolina, were afterwards removed towards the western coast, where they were inserted, with a suppositious lake, from an imaginary journey of a Mr. Lawrence in 1790. It is now admitted that they do not exist; and the fable seems to have arisen from some of the Bretons, who settled in Acadia, having taught their language to some savages.

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by Pratz, Charlevoix, and other writers*. In a work of more extent it might be proper to describe the manners of this people, of the Five Nations, of the Central tribes, of the Iskimos, and of the Western Races on the Pacific. In a brief view of the native languages, it is unnecessary to repeat, that the Iskimos and Greenlanders are the same people with the Samoieds of Asia.† The Algonkin was the most celebrated of the native languages, beginning at the gulf of St. Lawrence, and including a circuit of about 3000 miles. The Huron language, which was also that of the Five Nations, was of smaller extent, on the west of the Algonkin. Yet further to the west was the language of the Sioux, which was also that of the Knistineaux, corruptly called Christinaux, but properly Killistinons, originally seated on the north of Lake Superior.‡ But, according to Mr. Mackenzie, the Killistinons were originally the same people with the Algonkins, or inhabitants of the Atlantic coast; while the Chepiwians, or Chepawas, and the numerous tribes who speak their language,‖ occupy the whole space between the country of the Killistinons, and that of the Iskimos, extending to the river Columbia, lat. 52°. By their own traditions they came from Siberia; while intelligent travellers, on the contrary, consider the Techuks as proceeding from America: but such interchanges of nations are not unfrequent in barbarous periods. The tribes near the source of the Missouri are said to be from the south, and their progress north-west, probably retiring from the Spanish power.** The language of the Natchez, and other nations in the Spanish territory, has not been sufficiently illustrated; and in the isthmus the dialects are said to be various, and radically distinct, yet probably, on a nearer and more skilful examination, would be found to approach the Mexican.††

* The Natchez are now almost entirely extinct.

† The word Iskimo is said to imply an eater of raw flesh, Charlevoix I. 273. The Sioux is a French corruption of Naduessis, Ib. 280.

‡ Charlevoix, I. 283. 276. 406.

‖ Here is great confusion. The language of the Chepawas is, unquestionably, Algonkin, which is by no means confined to the Atlantic coast, but extends far west and north-west, in the continent. B.

** Mr. Mackenzie, p. cvii. has published a vocabulary of the Killistinon and Algonkin, which sufficiently shews their identity. The Killistinons extend to the lake of the Hills and north to the Iskimos. Their manners are described by Mackenzie, p. xcii. For the Chepawas, see p. cxvi. where their chief residence is said to be between lat. 60° and 65°, and long. 100° and 110°, but they reach to lat. 52° and long. 123°, where they join a distinct people on the shores of the Pacific. From the traditions, p. cxviii. it does not appear that the Chepawas came from Siberia; for how could they land at the Copper Mine river? The vocabulary of their language, p. cxxix, might be easily compared with that of the Asiatic tribes. Pinkerton.—It has been compared, and is found to contain many Asiatic words, particularly words in the dialects of different Tartar and Samoied tribes. B.

†† "But no Pallas (says Mr. Pinkerton) has arisen to class or arrange the languages of America." True: nor does the world produce many such men as professor Pallas. Many of the American languages have, however, been classed or arranged, and we begin to approach a systematic view of them. Some affinities between the Mexican language and the dialects of the Creeks, &c. have been pointed out. Many more will be pointed out. B.

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WESTERN COAST.

THE Russians may be regarded as the first discoverers of the north-western shores of America. To the isles between Asia and this continent they assign different names, as Andrenovian, &c. but in their own most recent maps one general appellation is substituted, that of the Aleutian Isles. The furthest Aleutian Isles, which form a chain from the American promontory of Alaska, are also called the Fox isles; while the nearest Aleutian isles of the Russians are those which we term Beering's. But in the best English maps the name of Aleutian is restricted to the former*; and it is to the English navigators that we are indebted for the precise geography of these regions, which have been strangely embroiled by the erroneous astronomical observations of the Russian captains. The excellent Cook, in particular, greatly extended our knowledge; and he was followed by Meares, Dixon, Vancouver, La Perouse, and other able navigators; and recently by Mackenzie, who has the singular merit of having first visited the Pacific by an inland progress from the east.

This coast, as already mentioned, seems to be chiefly alpine; in which respect, and in its numerous creeks and isles, it bears no small resemblance to Norway. The most remarkable mountain seems to be that called St. Elias by the Russian navigators: and which, it is affirmed, has been visible at sea at no less a distance than about sixty leagues. At Port des François, lat. 58°, 37′, La Perouse observes that the primitive mountains of granite or slate rise from the sea, yet the summits are covered with perpetual snow, and immense glaciers wind through the cavities.† The natives he has minutely described; and says that he has always found savages "barbarous, deceitful, and wicked." Their most singular practice is the slitting and distending of the under lip, so as to beautify the females with two mouths.‡ The lofty mountains, which La Perouse computes at more than ten thousand feet in height, terminate at Cross Sound; but the alpine ridges continue, though of smaller elevation, and probably extend with few interruptions

* In the Russian form *Aleoutskoie*. The Russian *skoie* is a possessive adjective, as *an* in the Latin, &c. thus *Harley*, *Harleian* library, &c. which in Russian would be *Harleyskoie*.

† II. p. 129.

‡ The Mexican monarchs appear in paintings with ornaments fixed to the under lip.

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as far as California. Mr. Mackenzie in lat. 53°, and Vancouver in a more southern latitude, found the same mountainous appearances. What is called the coast of New Albion has been faintly explored.

The inhabitants of the more northern regions of this coast appear to be Iskimos. In the part through which Mr. Mackenzie passed, he found some of the tribes of a low stature, with round faces, high cheek-bones, black eyes and hair; the complexion of a swarthy yellow. Nearer the Pacific the people, as already mentioned, had grey eyes tinged with red; and their manners are minutely illustrated in his narrative.

BOTANY OF CANADA AND THE NORTH.

The indigenous plants of the regions north of the river St. Lawrence form a singular mixture of the Floras of the most northern parts of Europe and Asia and the United States. From the intensely cold winters and hot summers of this extensive appendage to the British empire, it might, indeed, be à priori expected that the annual plants, and such as are capable of being sheltered in winter under the snow, should be, for the most part, the same as those of more southern countries; while the trees and shrubs, having to brave the utmost rigour of the climate unprotected, should be characteristic of the Arctic regions. A regard to this circumstance will enable us to explain the seeming contradictions in the agriculture of Canada, which are scarcely credible by the mere uninformed English farmer; such as that gourds and water melons should be a common field crop, while the hardiest winter corn is almost always destroyed by the cold.

The forests are numerous, but the trees rarely attain that bulk and luxuriance of growth which distinguishes them in the southern states. The family of firs and evergreens compose perhaps the largest proportion; and of these the principal are, the Silver leaved fir, the Weymouth pine, the Canadian pine, the hemlock spruce fir, and the white cedar of Canada (thuya occidentalis*), which must not be confounded with the white cedar of the United States (cupressus thyoides). Next to these in importance are the sugar maple, the red maple, the birch, the American lime and elm, the iron wood and cercis Canadensis. The numerous species of oaks are either wholly unknown, or are contracted into despicable shrubs, all the ship timber of Canada being brought from the New-England states. The sassafras, laurel and red mulberry, are also met with in the islands of the St. Lawrence, but in a similar state of depression, the whole of the summer's growth being generally destroyed by the next winter. The ash, the yew, and mountain ash are found in the northern tracts both of the old and new world;

* The thuya is a common tree in the state of New-York, and even extends to a low latitude in Virginia, where the cercis Canadensis also abounds. Indeed, many of the vegetables of Northern Canada are found in pretty southern latitudes of the United States; for many of the vegetables of North America have a very extensive range through the continent. Thus the sassafras extends from lake Ontario to the West-India islands. B.

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but the light festoons of wild vine, with its pendant clusters, and the fragrant blossoms of the Syrian asclepias, form a characteristic feature of the forest scenery of Canada.*

The lilium Canadense, similar to the Sarrane lily of Kamschatka, and the ginseng (panax quinquefolium), common to America and Tatary, point out a similarity between the northern Floras of Asia and America. This similarity is shewn by many other vegetables which are common to North America, Japan, Siberia, &c.

The juniper, the cranberry, the bearberry (arbutus uva ursi), the black and red currant, the raspberry, and wild cherry, which have already been mentioned as natives of Lapland and the whole North of Europe, are found in great plenty in similar situations on the opposite shores of the Atlantic.

Of the other Canadian plants little is known, and a meagre catalogue of Linnæan names would contribute equally little to the amusement as to the instruction of the general reader. One, however, the zizania aquatica, deserves to be mentioned:† this culmiferous vegetable is nearly allied to the rice; it grows abundantly in all the shallow streams, and its mild farinaceous seeds contribute essentially to the support of the wandering tribes of Indians, and to the immense flights of swans, geese, and other aquatic fowls, which resort hither for the purpose of breeding. Productive as it is, and habituated to the climate, inhabiting also situations which refuse all other culture, it is surprising that the European settlers have as yet taken no pains to improve a plant, which seems intended by nature to become at some future period the bread corn of the North.

* Neither the ash, the yew, nor the mountain ash of Canada appear to be precisely the same species as the vegetables of the same denomination in the old world. B.

† See Fragments of the Natural History of Pennsylvania. part i. tables. B.

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THE AMERICAN ISLANDS,

OR

WEST INDIES.

THESE islands, so important to commerce, are Cuba, St. Domingo, Jamaica, and Porto-Rico, all of considerable extent; and followed by the distinguished group called the Antilles, Caribbee, or Leeward Islands, but more properly by the French, Windward Islands, as being towards the east, the point of the trade wind.* To the south of this group is Trinidad, a recent English acquisition; to the west of which stretch the Leeward Islands of the Spaniards. In the north-east of this grand assemblage are the Bahama or Lucayos Islands, narrow and barren strips of land, formerly frequented by pirates, till subjected to the legal power of England; but chiefly remarkable, as having been the first discovery of Colon. The restricted nature of this work will not admit of a description adequate to the importance of these islands, which is the less to be regretted, as the subject is already familiar to most readers. The best geographical order appears to be that suggested by their natural extent and importance, independent of the partial and fleeting distinction of European possession.

CUBA.

THIS noble island is not less than seven hundred British miles in length; but the medial breadth does not exceed seventy. On his first

* The British mariners apply both terms to the Caribbee Islands; the Windward ending with Martinico, the Leeward reaching from Dominica to Porto Rico, Edwards, i. 5.

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voyage, after exploring the Bahama isles, Colon discovered Cuba;* but though delighted with the beauty of the scenery, and amazed at the luxuriant fertility of the soil, he soon abandoned it to proceed to Hayti, afterwards called Hispaniola or St. Domingo, where he expected to find a greater abundance of gold; which, with gems and spices, formed the only objects of the early navigators. While Hispaniola was selected as a factory to secure the acquisition of gold, it was not certainly known whether Cuba was an island, or part of the continent; till 1508, when it was circumnavigated by Ocampo;† and in 1511 it was conquered by three hundred Spaniards under Velasquez.‡ The number of the inhabitants was no doubt exaggerated, as even in our enlightened times happened with regard to Otaheite, and other new discoveries. The Spaniards certainly did not achieve miracles in their American conquests; nor was the awkward use of unwieldy cannon and fire-arms, at that time, so fatal and preponderant a circumstance as may be imagined. The Malays with their creeses defy fire-arms. The natives were not only timid, but few; and nine tenths may be safely subtracted both from Spanish valour and Spanish cruelty.‖ These reflections have been excited by the charge of extermination brought against the Spaniards of Cuba; while the natives equally vanish around all European colonies, the real destroying angels being the small-pox, and spiritous liquors. The British Buccaneers have taught us to regard the Spaniards as bees, who must be destroyed to get at the honey; but if ever the cause of truth must be sacrificed, it should be offered at a nobler shrine than that of vulgar prejudices, or interested enmity.

The industry of the Spaniards is far from being proverbial; yet such is the fertility of Cuba, that it may be regarded as a most important and flourishing possession. The quantity of sugar is considerable; and the tobacco is esteemed of a more exquisite flavor than that of any other part of America. This, with the other large islands, were also called the Great Antilles, the origin of which term has been before explained; and they were also known by the name *Sotavento*, or the *Leeward Islands*, in contradistinction to the exterior group called *Barlovento*, or *Windward Islands*. Havanna, the capital, was built in 1519; and was taken in 1669 by Morgan, a celebrated buccaneer. It again surrendered to the English in 1761, and treasures were found of no

* Robertson's America, i. 122.

† Colon, on his return to Europe, from his first voyage, described Cuba as an *island*, larger than England and Scotland together. B.

‡ Robertson's America, i. 249.

‖ Mendez de Pinto was a Portuguese; but the ancient Spanish writers, tainted with the imagination of their inmates the Moors, were little less hyperbolical. It is however ludicrous that their own exaggerations should have led to the charges of cruelty and destruction. The noted Las Casas, the Dominican friar, was a man of heated imagination; and his credit may be judged of by his assertion that a district of eighteen leagues in St. Domingo is watered by *twenty-five thousand* rivers! Charlevoix, ii. 373. Even the eyes of such a witness cannot be believed. Pinkerton.—The charge of timidity as a part of the character of the inhabitants of the West-India islands, is a charge founded in an utter ignorance of the American history. See the voyages of Amerigo Vespucci, &c. where the reader will easily meet with most impressive examples of the bravery of the islanders. B.

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small amount. This extensive island is divided by a chain of mountains passing east and west. The rivers are of short course, but there are several excellent harbours. Among the products must also be reckoned ginger, long pepper, mastic, cocoa, manioc, and aloes. There are mines of excellent copper, which supply the other Spanish colonies with domestic utensils; and gold is not unknown in the rivers. The forests abound with wild cattle and swine; and among the trees are ebony and mahogany. There is a governor-general; and eighteen jurisdictions are governed by distinct magistrates. The natural history of this large island is very defective, as is the case with too many of the Spanish possessions.

SAINT DOMINGO.

THIS island, the second in the American archipelago, is about four hundred British miles in length by one hundred in breadth. Under the name of Hispaniola* it was the first Spanish settlement in the new world. The French colony derived its origin from a party of buccaneers, mostly natives of Normandy, towards the middle of the seventeenth century; and the western part was formally ceded to France by the peace of Ryswick. So industrious and flourishing was this French colony, that it was termed the paradise of the West-Indies: and according to Mr. Edwards† in 1790 the population amounted to 30,831 whites, and about 480,000 negro slaves, the mulattoes, or free people of colour, being supposed to be 24,000; while the average exports before the revolution stood thus:

			Livres.
Clayed sugar,	lbs. 58,642,214		41,049,549
Muscovado,	lbs. 86,549,829		34,619,931
Coffee,	lbs. 71,663,187		71,663,187
Cotton,	lbs. 6,698,858		12,397,716
Indigo,	hhds. 951,607		8,564,463
Molasses,	hhds. 23,061		2,767,320
An inferior sort of rum called taffia,	hhds. 2,600		312,000
Raw hides,	No. 6,500		52,000
Tanned ditto,	No. 7,900		118,500
The total value at the ports of shipping in livres of St. Domingo, was			171,544,666

being equal to 4,765,129l. sterling money of Great-Britain.

* More properly, Espanola. B.

† History of St. Domingo, 1797, 4to. p. 134. Reprinted in the third volume of his West-Indies, 1801, 4to.

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The national assembly of France passed some contradictory decrees concerning the rights of the mulattoes, or, as they are affectedly styled, people of colour, to vote for representatives. The smallest ray of political prudence might have informed them, that the government of distant colonies ought not to have suffered the least alteration, till years after that of the parent country was established on a solid and lasting basis. After many absurd struggles between the whites and mulattoes, on the 21st June, 1793, three thousand negro slaves, supported by the mulattoes, entered the capital city of Cape-François, and perpetrated an universal massacre of the white men, women and children. The abolition of slavery by the infatuated commissioners, in order to defend the island against the English, has had the effect that might have been foreseen, the colony having been lost, at least for a season, to European civilization and culture. The very nature and existence of the negroes, and other savages, being akin to that of other ferocious animals, and their chief pleasure to destroy, it would be in vain to expect any thing short of desolation from a negro colony; and the example being dangerous to the British possessions, a powerful fleet has sailed from France, with the concurrence of the English government, in order to repeat the subjugation of this island, which will probably be found far more difficult than the first conquest.* Amidst the effervescence of zeal without knowledge, this may be a lasting beacon to legislators to study the real practical business of life, and the irradicable difference of character and dispositions in the various races of men, to which infinite wisdom has allotted distinct portions of the earth; lest a negro should repay the philosopher's benefits by planting a dagger in his breast, with the favourite phrase of "am I not a man and a brother?"†

* The subsequent events in this unhappy island are well known in every part of the United States. B.

† See vol iii. of Edwards's History of the West-Indies, in which, from this shocking example, he justly declares against the "monstrous folly" of sudden emancipation. "The Caribs of St. Vincent, and the Maroon negroes of Jamaica, were originally enslaved Africans, and *what they now are*, the freed negroes of St. Domingo *will hereafter be*—savages in the midst of society; without peace, security, agriculture, or property: ignorant of the duties of life, and unacquainted with all the soft and endearing relations which render it desirable; averse to labour, though frequently perishing of want; suspicious of each other, and towards the rest of mankind revengeful and faithless, remorseless and bloody-minded; pretending to be free, while groaning beneath the capricious despotism of their chiefs, and feeling all the miseries of servitude, without the benefits of subordination!" In our ill-advised expedition against St Domingo, Hompesch's regiment of hussars was reduced, in little more than two months, from one thousand to three hundred, and the 96th regiment perished to a man. About the end of 1797, of nineteen thousand British and foreign troops, not more than three thousand were left alive, and fit for service; the loss of seamen being computed at five thousand; and the expenditure was five or six millions. ib. 385, 386. This is recorded as a general lesson to European nations against any warfare in the West-Indies, while at half the expence any one of them might be in possession of the southern half of Africa. The negro troops in St. Domingo offered to join the English, on condition of utterly cutting off all the mulattoes, ib. 389. Such are the virtues of savages! The negro chief of St. Domingo is a slave called Toussaint; and his army in 1797 was computed at 18,000 infantry and 1000 cavalry. He was opposed by the mulattoes, under Rigaud, to the

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JAMAICA.

THIS island was discovered by Colon, 1494, during his second voyage, but was little explored till his fourth and last voyage, when he was unfortunately confined for many months on the north side of this isle, by the loss of his ships. The history of Jamaica under the Spanish power may be traced in the ample account of Mr. Edwards. In 1655 it fell into the hands of the English, by whose industry it has become one of the most flourishing of the West-Indian settlements. In size it is the third island in this archipelago, being about one hundred and seventy British miles in length, by sixty in breadth. It is divided into three counties, Cornwall in the west, Middlesex in the centre, and Surry in the east. St. Jago or Spanish Town is regarded as the capital; while Kingston is the chief sea-port. The number of negroes is computed at 250,000, and the whites are probably 20,000, the free negroes and mulattoes 10,000. The chief exports are to Great Britain, Ireland, and North America, in sugar, rum, coffee, indigo, ginger, and pimento, valued in 1787, at 2,000,000l. The intercourse with Honduras, and the Mosquito shore, may now be regarded as abandoned; but some little trade is carried on with Spanish America by small vessels, which elude the vigilance of the guarda costas. The imports were computed at a million and a half, and slaves from Africa formed a considerable article.* There is a poll tax, with duties on negroes and rum, yielding more than 100,000l. annually; and the ordinary expenses of government in 1788 were computed at 75,000l. The legislature consists of the captain-general or governor; a council

amount of about 12,000. In October 1798, St. Domingo was abandoned by the British, who had been misled by designing foreigners; a distinguished feature, as Mr. Edwards remarks, in the conduct of the late war. Pinkerton.—Toussaint, who is now no more, having died in France, whither he was carried a prisoner, was born in St. Domingo, in November 1744. He was certainly one of the most extraordinary men of his time. His memory, in particular, was vast and correct. His judgment would have done honour to many a *white* general. His bravery and perseverance are universally acknowledged. But modern times have not presented us with any illustrious *Black* general, untainted by vices of the most monstrous kind. B.

* The maroon or runagate negroes have been sent to Nova-Scotia. The term *maroon* seems to be from the Spanish *Simaran*, said to signify an ape; Edwards, iii. 304: but more probably from *cima*, a mountain or dale, to which they retreat.

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of twelve, nominated by the crown; and a house of assembly, containing forty-three members, elected by the freeholders:* the three chief towns, St. Jago, Kingston, and Port Royal, returning three members, the other parishes two. The principal towns are within a short distance of each other, Spanish town being inland; while Kingston is on the north side, and Port Royal on the west, of a considerable bay; the last being greatly reduced by earthquakes and other calamities. The climate, though tempered by the sea breezes, is extremely hot; and the days and nights nearly of equal duration. A ridge of mountains, from east to west, divides the island into two parts; and the landscape often boasts of peculiar beauties. In the north the soil is generally a chalky marl, producing a close and clean turf, like an English lawn of the brightest verdure.† Towards the interior are forests, crowned by the blue summits of the central ridge. What is called the Blue Mountain Peak rises 7,431 feet above the level of the sea: and the precipices are interspersed with beautiful savannas. There are about one hundred rivulets, of which the Black River, running to the south, is the most considerable. Some sulphureous and chalybeate springs likewise occur. It is said that the Spaniards worked mines of copper, if not silver; and one of lead has been recently discovered. One of the most remarkable natural curiosities seems to be what is called the vegetable fly, a singular fungus, also found in one of the French West-India islands. It is said to abound on the summit of a high rock, in the shape of a hay-cock, but called the Dolphin's Head, near the town of Lucea, in that north-west extremity of the isle called the parish of Hanover.‡ This rock rises suddenly from a flat country; and the negroes hesitate to climb the lofty precipice. A more important object is the bread-fruit tree, which, with other useful plants, has been introduced by the exertions of Sir Joseph Banks, than which none can be more beneficial, or more worthy of applause.‖

* Edwards, i. 214.

† What is called the brick mould contains such a mixture of clay and sand as might be adapted to the kiln; but the name has no connexion with the colour, which is hazel. Edwards, ii. 205. This is the best soil for sugar canes next to the ashy loam of St. Christopher's; and is followed by the deep black mould of Barbadoes.

‡ From the information of a Jamaica planter.

‖ See Mr. Edwards' History of the West-Indies, 2d edit. v. i. p. xxv.

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PORTO RICO.

THIS isle, which belongs to Spain, is about one hundred and twenty British miles in length, by forty in breadth. Its size and consequence are well known to the possessors, being a fertile, beautiful, and well watered country. The chief trade is in sugar, ginger, cotton, hides; with some drugs, fruits, and sweetmeats: and the northern part is said to contain mines of gold and silver. Porto Rico was discovered by Colon in 1493; and was subjugated by Ponce de Leon, the first explorer of Florida, about 1509. The Spanish voyagers and authors, whose imagination magnified every feature of the new world, reported the native population at 600,000; while perhaps a real enumeration might have reduced them to 60,000, if not to 20,000.

THE CARIBBEE ISLANDS.

THIS range extends from Tobago, in the south, to the Virgin islands in the north; and includes Barbadoes, which stands rather detached towards the east, being about thirty-five degrees from the African islands of Cape Verd. The Caribbee islands are of noted fertility and commercial advantage, the chief possessors being the English and French. Barbadoes, Antigua, St. Christopher's, St. Vincent, Dominica, Grenada, Montserat, Nevis, and the Virgin isles, are British; and Barbadoes by far the most important, as it is supposed to contain 17,000 white inhabitants, while the others rarely exceed 2000. The French Caribbee islands are Martinique, Guadeloupe, St. Lucie, Tobago, and some islets. The Danes possess St. Croix, St Thomas, and St. John, which belong to the Virgin group: while the

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Swedes hold St. Bartholomew, and the Dutch St. Eustatius. Of the whole group, Barbadoes and Guadeloupe appear to be the most important; and the last, including Grand Terre and Basse Terre, is the most considerable in size, being about sixty British miles in length, by twenty-five in breadth. The Caribbee islands in general were discovered by Colon, on his second voyage, when he visited Dominica, Guadeloupe, and Antigua: but they were neglected by the Spaniards, eager in quest of the gold of the larger islands.

BARBADOES. Barbadoes is said to have been discovered by the Portuguese, who having made no settlement, it was seized by the English in the reign of James I; and the foundation of James Town was laid in 1624. Though the isle be only about twenty miles in length, and thirteen in breadth, yet this early English settlement has prospered to a surprising degree, exporting about 10,000 hogsheads of sugar, and 6,000 puncheons of rum, besides cotton, ginger, &c.* Grenada, and most of the others, were originally settled by the French, towards the middle of the seventeenth century. St. Christopher's was however a very early British settlement. Antigua is also said to have been planted by the English in 1632; while the French began to send colonies to Guadeloupe about 1630. The subsequent struggles between the two powers, concerning these valuable islands, would form too complex a narrative for the present design. They are generally plain and fertile; being remarkably contrasted with the barrenness of the Bahama group. In some there are small ranges of hills; and in Guadeloupe there appear to have been many volcanoes, the noted *Souffriere* being a kind of solfa terra, or vast mass of sulphur, emitting continual smoke. Dominica also contains several volcanoes. The products and exports of all these isles are similar, being sugar, rum, coffee, cocoa, indigo, cotton, &c.†

Under this head may also be arranged the small group running parallel with the shore of South America, of which Curazao and Buenayre belong to the Dutch, who import African slaves, whom they sell to the Spaniards on the continent.

TRINIDAD. Under this division may also be classed the island of Trinidad, recently ceded by Spain to Great Britain. This island is about ninety British miles in length, while the medial breadth may be about thirty. Colon landed here in 1498, when he discovered the mouth of the Orinoco; but the possession was neglected till 1535. The climate is said to be excellent, and remarkably free from hurri-

* In a hurricane, 10th October, 1780, the blacks and whites who perished were computed at 4,326, and the damage at 1,320,564l. 15s sterling. Edwards, i, 347.

† St Vincent's may be said to be divided between the black Caribs, or descendants of revolted negroes, and the British, whose territory is divided into five parishes, the chief town being Kingston; Edwards, i. 403. The cocao or chocolate nut grows on a tree resembling a cherry. The pods, when green, are like cucumbers, and contain from twenty to thirty nuts, or rather kernels, not unlike almonds. The cakes seem mixed with flour and Castile soap. Edwards, ii. 508. There is a confusion of *cacao* and *cocoa* in some authors. Pinkerton.—The cacao belongs to the genus theobroma; the cocoa to the genus cocos. B.

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canes, which are dreadful scourges of the other American isles.* Heavy rains prevail from the middle of May till the end of October; and there are so many rivers, that the dryness of the other half of the year is little regretted. Sometimes slight earthquakes are felt, but little dangerous. In the interior are four groups of mountains, which, with some other ridges towards the shores, are computed at a third part of the territory; the other two thirds are said to consist of a most fertile soil. The southern coast is well adapted to the culture of coffee; and on the west is a large harbour, reputed very secure in all seasons. Here are the Spanish settlements, the largest containing only about eighty huts. The cocoa trees perished in 1727, by the force, as is said of the northern winds; and any new plantations ought of course to be protected on that quarter by thick fences of forest trees.†

THE BAHAMA OR LUCAYOS ISLANDS.

THESE isles, though very numerous, and some of them of considerable size, are little known. They are said to have been totally deserted when, in 1672, a few Englishmen took possession of the island which they called Providence.‡ But becoming a nest of pirates, a force was sent from England to subdue them; and a small regular colony established about 1720. The English in the Bahama islands are computed at three or four thousand; half being settled in Providence, where there is a fort called Nassau, and a small harbour. The few exports are cotton, dying woods, live turtle, and salt. The soil seems to be naturally barren; and the narrow length of these isles, much exposed to the heat and the winds, accounts for their comparative insignificance in this grand commercial archipelago.

BOTANY. The West-Indian islands, from their tropical situation, and the great height of their mountains, command a large extent of temperature, and contain a proportional variety of native vegetables. We are far however from possessing a complete flora of these coun-

* Raynal, iv. 165.

† In the map of La Cruz the island of Trinidad appears in a very different form from that assigned by D'Anville, and commonly received. The length is from north to south, instead of east and west, and the chief settlement, S. Josef de Oruna, is in the north-west, not far from the port de Espana, the best harbour. The length of the island is given at about eighty British miles, by half the breadth.

‡ Ib. v. 64.

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tries: activity in scientific research is not very congenial either with the manners or the commercial engagements of the inhabitants; and the pestilential exhalations from the swamps, and the pathless intricacies of the forests, "strangled with waste fertility," that on all sides gird the mountains, may well dispirit the most adventurous naturalist.

Several of those giant sons of the forest that were noticed in the botany of India, grow wild in these islands, and equal in stateliness their oriental brethren. Such are the Indian fig or banyan tree, at first a feeble stem, twining for support round some neighboring plant, but in the course of years becoming a grove by itself; the bombox ceiba, or wild cotton tree, from a single hollowed trunk of which has formed a canoe able to contain a hundred men; the logwood; and the locust tree, most grateful in these torrid regions by its night of shade. Scarcely inferior to these are the wide-spreading mahogany, the brasiletto, the cabbage palm, the tallest of all vegetables, rising sometimes in a strait majestic column to the height of nearly two hundred feet, and the great fan palm, one of whose capacious leaves will shelter eight persons from the rain or sun. The cecropia deserves mention, not only as a large timber tree, but for the excellence of its fruit, and its tough fibrous bark that is used for cordage; the tamarind tree for its airy elegance, and its acid pods, of no mean estimation in this sultry climate. The laurus chloroxylum, or cog wood, is of high value in mill work; and the Iron wood, the Barbadoes cedar, and a species of cordia, known in the English islands by the name of Spanish elm, are in great request for durable substantial timber.

The fruits of the West-Indies are deservedly celebrated for their variety and flavour; the plantations in the mountainous districts yield the apple, the peach, the fig, the grape, the pomegranate, the orange, and all the other European fruits, while the more sultry parts abound in native products that may well vie with, if they do not surpass, these adopted strangers: the pine-apple, the sapota or sapadilla, the avocato pear, the cashew nut, the cocoa nut, the psidium or guava, the custard apple, the papaw, the shaddock, and the granadilla, form the principal.

The commercial products of these islands are for the most part procured from cultivated and naturalized vegetables, which therefore can scarcely be admitted in an account of their indigenous plants. The vanilla however is found truly wild in the woods of Jamaica and St. Domingo; the aloe, though cultivated only at Barbadoes, grows spontaneously on the dry rocky soils of Cuba, the Bahamas, and many other of the islands: the bixa orellana, from which is procured the annotta, is common to the West-Indies, and all the hot parts of America; and the fragrant pimento or all-spice is not only a genuine native, but even refuses to be propagated by human care. Of all the beautiful species of myrtle, the myrtus pimenta is perhaps the most beautiful, and from the eloquent pen of Bryan Edwards it has received its merited praise; it rises in natural groves on the side of the mountains that look toward the sea, to the height of twenty or thirty feet, and as no other shrub will grow beneath its shade, it always affords a cool open walk, perfumed with the exquisite fragrance of its snowy blossoms, floating in loose clusters on its deep green foliage.

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But few of the other indigenous vegetables of the West-Indies are likely to interest the general reader; of these the aborescent ferns are perhaps the most striking: while the British ferns never exceed the height of three or four feet, and die to the ground at the approach of winter; those species that enjoy the perpetual summer of these islands are perennial plants, and the polypodium arboreum in particular throws up a trunk above twenty feet high, terminated by broad pinnated leaves, which gives it exactly the habit and general appearance of a palm tree.

Three plants remain to be mentioned, namely, the guiacum or lignum vitæ, of which both the resin and the wood are useful, the former in medicine, the latter as a material for pullies and turnery ware; winterana canella, whose bark is introduced into the pharmacopœa; and cinchona Caribbæa, a species of the Peruvian bark.*

* For much information concerning the vegetables of the West-India islands, the botanical reader may consult, with great advantage, the writings of Sloane, Browne, Jacquin, Hughes, Swartz, and many other botanists or travellers. To Swartz, in particular, we are indebted for a most important work, the Flora Indiæ Occidentalis. B.

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SOUTH AMERICA.

EXTENT.—ORIGINAL INHABITANTS.—CLIMATE AND SEASONS.—LAKES.—RIVERS.—MOUNTAINS.

EXTENT. THIS division of the new continent extends, as already explained, from the mountainous boundary between the provinces of Veragua and Panama, the latter province belonging to South America. But the land afterwards ascending considerably further to the north, the length must be computed from about 12° of north lat. to 54° south lat. and yet further, if the Terra del Fuego be comprised. The length is at least sixty-six degrees, or 3960 geographical miles; while the breadth, as already mentioned, is about 2880 geographical miles.

ORIGINAL POPULATION. The original population of this large portion of the earth remains obscure, but has, in all probability, been from Asia: for it has already been observed, that the sources of population of the two continents seem to have been the same. Indeed, many striking affinities between the languages of the Peruvians, Chilese, Brazilians, and other nations of South America, and the languages of the Asiatics, have been pointed out.*

* Mr. Pinkerton thinks it more probable, that the South Americans are derived from Africa. "The discovery of Brazil (he says), by a Portuguese fleet destined to pass the Cape of Good Hope, shews that America might have been disclosed by mere accident; and that the winds might waft vessels across the Atlantic. The constant trade winds, blowing from east to west, could scarcely fail to impel some rash African mariners to the American shores. This conjecture (he adds) may perhaps admit more probability, when further discoveries and investigations shall have been made in the African dialects.—The Natchez of Florida seem to strengthen this theory, by their tradition that they came from the rising sun, or the east, that the voyage was long, and their ancestors on the point of perishing when they discovered America. Du Pratz, ii 113. The natives of the Canaries are said to have been extremely tall, and may perhaps have been the ancestors of the Tehuels, called by Europeans, Patagonians, who always bury their dead on the eastern shores, as looking towards the country of their ancestors. See the French Astronomical voyage, 1778, 4to. tome i. and Falkner's Patagonia." Our specimens of the language of the Natchez is small and imperfect, but it is sufficient to shew, that it is closely allied to the Creek language; and this last is, unquestionably, Asiatic. It contains many Japanese and Tatar words; and it is curious to observe, that many Japanese customs are the customs of the Creeks. B.

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PROGRESSIVE GEOGRAPHY. The progressive geography is here synonymous with the various discoveries which have been indicated in the general view of America. Many parts of the interior are still obscure; wide regions on the great river of Amazons being covered with impenetrable forests, and others flooded by the inundations, so that much precision can rarely be attained. In the south there are vast saline plains, and small sandy deserts, equally adverse to geographical certainty. The Spanish maps are likewise of noted inaccuracy. But great light has been diffused over South America by the recent large map of Don Juan de la Cruz, Cano y Olmedilla, geographer to the king 1775, republished by Mr. Faden 1799. So recent is any exact delineation of this grand division of the new world!*

The religion of South America is in general the Roman Catholic, with the exception of the small Dutch territory, and a few savage tribes.

CLIMATE AND SEASONS. The southern extremity, extending far beyond that of Africa, is exposed to all the horrors of the antarctic frosts; and Terra del Fuego in the south lat. of 55° seems exposed to the almost perpetual winter of Greenland in north lat. 70°. Tehuelia, or Patagonia, consisting mostly of open deserts and savannas, with a few willow trees on the rivers, seems to enjoy a temperate but rather cool climate. On proceeding towards the north the great chain of the Andes constitutes real zones and climates, which strangely contradict the theories of ancient geographers; the chief inconveniencies of the torrid zone being extreme cold on the mountains, and extreme moisture in the plains.† Near Callao the months of October and November form the spring. In Peru what is called summer is the dry season, often extremely cold; and the rainy season is called winter. The former begins in May, which is nearly the beginning of winter in the lower parts, and continues till November, when the slight fogs, called winter in the vales, begin to disperse. On the mountains winter begins in December, which in the plains is the first month of summer; and a journey of four hours conducts the traveller from one season to another. At Quito, situated between two chains of the Andes, on a plain of remarkable elevation, the months from September to May or June constitute the winter; and the other months the summer; the former being exposed to almost constant rains, which are also frequent, but at longer intervals, during the summer season.‡ At Carthagena the winter, or rainy season, extends, on the contrary, from May to

* Even the large map by Kitchen, 1774, of the southern half, inserted in Falkner's Patagonia, though pretended to be built upon authentic materials, will be found to be almost wholly imaginary, when compared with that of La Cruz.

† Ulloa Memoires Philosophiques, Paris, 1787, two vol 8vo. i. 89.

‡ Ulloa's Voyage, i. 278, but see the observations at the end of vol. ii. of the French translation, two vol. 4to. which is far superior. At Riobamba the winter lasts from December to June, being far colder than at Quito; and further to the south *Chili* (Tchili) receives its name from *snow*. From the gulf of Guayquil to the deserts of Atacama, a space of 400 leagues in length by 20 or 30 in breadth, it never rains; and thunder storms are unknown. Bouguer, xxiii.

November, and the summer, or dry season, from December to April. At Panama the summer begins rather later, and ends sooner; at Lima, in a southern latitude nearly corresponding with the northern of Carthagena, the heat is far more moderate; and spring begins with December, winter with July: the summer is in February, the autumn in May.

In general the confined regions on the west of the Andes are dry, the clouds being arrested by their summits; while the wide countries on the east of that chain are exposed to torrents of rain, from the eastern or trade winds blowing over the Atlantic. In Brazil the rainy season begins in March or April, and ends in August, when the spring begins, or rather the summer, the distinction being only between wet and dry seasons.*

Lakes. South America can scarcely boast of any inland sea; but the great river of Amazons, and that of La Plata, may be said to supply this deficiency; and if numerously peopled by industrious inhabitants, there would be no room to complain of the want of inland navigation throughout the greater part of this ample portion of the earth. The gulfs on the south-west extremity containing the isles of Chiloe, St. Martin, &c. are of small consequence, and in a remote and disadvantageous position. No part of the globe displays so great a number of lakes as North America; and the southern part of the new continent is perhaps equally remarkable by their rarity. Many supposed lakes, as that of Zarayos or Sharayos, in the course of the river Paraguay, only exist during the annual inundations, which are on a far grander scale than those of the Ganges, and may be said to deluge whole provinces. In the most northern part the Lagoon of Maracaibo is remarkable, being a circular bason about 100 British miles in diameter, receiving numerous rivers and rivulets, and communicating with the sea by a considerable creek. The celebrated lake Parima, called also Paranapitinca or the White Sea, is represented by La Cruz as more than 100 British miles in length by fifty in breadth. This size, and even its existence, have been doubted, as it was the noted seat of the city El Dorado, the streets of which were paved with gold; a fable which seems to have arisen from a rock of talc reflecting like a mirror, the golden rays of the sun. According to La Cruz this lake receives the Orinoco on the north-west which afterwards emerges, and pursues a westerly course, till it finally bends north and east. The Parima also gives source to the great river of the same name, likewise called the Rio Blanco, which joins the river Negro, and great river of Amazons. In this part of South America, there is, as it were, a contest betwixt land and water; and so level and mutable is the soil, that the rivers seem dubious what course to pursue, as they flow in every direction, and branches of the Orinoco communicate with the tributary rivers of the immense Maranon. The natural history of the celebrated lake of Parima would not be a little interesting, but a deep obscurity pervades those regions.

In Amazonia and Brazil there do not appear to be any lakes of consequence: but the Portuguese are inferior even to the Spaniards in

* Piso, lib. i.

geography and natural history, and many discoveries remain to be made in their ample possessions. The lake of Zarayos or Xarayes is a mere inundation of the river Paraguay, and is justly exploded*.

Titicaca. But that of Titicaca, nearly in the same parallel and in the kingdom of Peru, is regarded as the most important in South America. Ulloa says that it is of an oval figure, the circumference about 240 miles; and the depth 70 or 80 fathoms. It receives ten or twelve rivers and several rivulets; but the water, though not saline, is nauseous, being probably tainted with sulphur or bitumen. It contains two kinds of fish, and is frequented by geese and wild fowl. In an isle of this lake Mango Capac, the founder of the Peruvian monarchy, reported that the† sun, his father, had placed him, with his sister and consort, Oello; and here a temple was dedicated to the sun, the most splendid in the kingdom, and profusely decorated with plates of gold and silver. On the Spanish invasion these treasures are said to have been thrown into the lake‡.

A few small lakes are found near the source of the river Parana; and there are two large lagoons on the eastern coast, lat. 31° 33′. Towards the south of Chili there are some lakes of considerable size, communicating with the river of Sauzes, or Willows, one of them being called the lake of the Tehuels; and a few small lakes further to the south are saline, a wide extent of territory being impregnated with nitre.

Rivers. The river of Amazons, so called from a female tribe inured to arms, discovered on its banks by the first navigators, but more properly by a native term the Maranon, is celebrated as the most distinguished river, not only in South America, but in the whole world: and this reputation is no doubt just when its magnitude is considered, as well as its length. For in the latter attribute it seems to be rivalled by the Kian Ku of China, and perhaps by the Ob of Siberia, as already explained in discussing the course of the Missouri; when it was observed that, on the comparative scale of merely tracing the course by an accurate map, and allowing for the great changes of direction, the length might be estimated at about 2300 miles; and that of the Riode la Plata about 1900: but the estuary of the Ob is frozen, and that of the Kian Ku cannot exceed a mile or two in breadth, while the two grand American rivers are of surprising magnitude. The Chinese annals say, that their great rivers have been confined by art, while in ancient times they inundated whole provinces, like the Maranon.

The voyage of Condamine contains the most accurate description which has yet appeared of this grand river‖. The source is not yet absolutely ascertained. The celebrated mathematician just quoted, says, that the Ucaial is the chief stream, as its sources are more remote than those of the supposed Maranon: and it is a considerable river in

* Dobritzhoffer, i. 200.

† The Mouses, the Miamis, and other North American tribes assert, that they sprang out of the lakes of the country. B.

‡ Ulloa, ii. 163, or Tome i. 534, of the French translation.

‖ Relation abrégrée d'un Voyage fait dans l'interieur de l'Amerique Meridionale, Paris, 1745, 8vo.

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the same parallel, when the other is only a torrent*. On the other hand the Maranon makes a greater circuit, and is of extraordinary depth. According to Ulloa the Maranon issues from the lake of Lauricocha, near the city of Guanuco, south lat. 11°, whence it directs its course south for about sixty miles, then bends east through the country of Juaxa, where after falling from the east side of the Andes, it passes north to the city of Jaen†. Thence it proceeds in its long progress towards the east; and joins the Atlantic after a course, including all the windings, of 1100 leagues, or 3300 miles. Ulloa also doubts whether the Ucaial must not be regarded as the principal stream. In the valuable map of La Cruz, what he calls the *ancient* Maranon, or Pari, corresponds with the description of Ulloa; but receives the Apurimac, a river of far longer course, rising near the town of Arequipa, on the west of the great lake of Titicaca, south lat. 16° 30′. If this representation be just, there is no doubt that the Apurimac is the original and proper river of Amazons; and both of these sources belong to the Ucaial. The *new* Maranon, according to La Cruz, rises indeed from the lake of Lauricocha, near the source of the Pari; but runs north-west instead of passing south, as Ulloa supposes, by confounding the *old* and *new* Maranon, and the lake of *Lauricocha* with that of *Chinchay*, a few miles to the south, which last gives source to the Pari. These improvements in the geography seem to establish beyond all doubt, that the Ucaial, from its remotest branch the Apurimac, must be regarded as the genuine Maranon; while the river called the New Maranon (for the name towards its source is omitted), is of far shorter course, and was only styled the Maranon from a mistake in its fountain. In the map of La Cruz, though the course of the Ucaial be more direct, it amounts to about seventeen degrees at its junction with the supposed Maranon, which may be called the river of Lauricocha‡, while the latter does not exceed fourteen degrees and a half.

Ucaial. The Ucaial, thus consisting of two main sources, the old Maranon or Pari, and the Apurimac, after passing the great chain of the Andes, bends sometimes north-west sometimes north-east, till it receives the new Maranon. But the course of the Ucaial being through a more remote country, and more unexplored forests than that of the Lauricocha, its chief features, and natural history, are less known; and the savages on its banks unfortunately massacred their missionary in 1695, so that Condamine and Ulloa are alike ignorant concerning this noble river, which probably presents objects more grand and interesting than those on the Lauricocha. The Apurimac, struggling through the Andes, must also afford many striking scenes, still lost to scientific observation.

Lauricocha. On the contrary, the Lauricocha or new Maranon has been repeatedly described, and was navigated by Condamine from near the town of Jaen, where it begins to be navigable; thence passing north-east it arrives at the exterior ridge of the Andes, which it cleaves at a pass called the Pongo, a word in the Peruvian language

* Page 69.

† Ulloa; i. 365. or 307, French translation.

‡ Ulloa expressly uses this name, i. 366, in contradiction to the Ucaial.

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implying a gate. This sublime scene displays the Lauricocha confined between two parallel walls of almost perpendicular rock. From a breadth of 250 fathoms, the river is here contracted to twenty-five; but the rapidity is not extreme, and a raft passes the two leagues in about an hour.

After the junction of these two great rivers, the Maranon, besides smaller streams, receives from the north the Napo, the Parana, Yupuro, the Great Negro which has received the Parima; and from the south the Cuchivara or Araza, and the prodigious stream called Madera, consisting of the Bene, the Mamore, and the Ytenas, the chief sources of which are from the eastern side of the Andes, watering a vast extent of this wide continent. The Madera may indeed be regarded as another grand source of the river of Amazons; which is also joined from the south by the Topaisa and Shingu, while its estuary is connected with the great Brazilian river called Tocantinas. Like the Missouri and St. Lawrence the Maranon is discoloured with mud. The breadth at the Portuguese boundary is said to be a league, but it is generally about two miles, and no bottom is found at 103 fathoms. The effect of the tides is perceivable to the distance of 600 miles, but Condamine thinks that the swell is occasioned by the progress of the tide of the preceding day. The banks are generally crowned with vast forests of lofty trees, among which are many of a rare and medicinal nature. Serpents of prodigious size are found in the marshes, and alligators are also common. It seems certain, from the disquisition of Condamine, that some female warriors* still exist towards the north of this great river. After it has received the Shingu, the breadth from shore to shore cannot be discovered by the eye. Near its mouth the Bore rises from twelve to fifteen feet in height, and the noise of this eruption is heard at the distance of two leagues†.

2. La Plata or Parana. The Rio de la Plata, or river of Silver, is the conjunct flood of the Paraguay, the Pilcomayo, the Parana, and the Urucuay. The main streams are the Paraguay and the Parana, and it would seem that the latter is the longest and most considerable, rising in the great mine mountains of Brazil, latitude nineteen degrees, and bending south, then west till it receive the Iba Parana, after which it bends south-west till it is joined by the Paraguay, while the conjunct rivers are still called the Parana by the natives, and the Rio de la Plata by the Spaniards. Yet the length of the Paraguay, according to the map of La Cruz, does not yield above half a degree to that of Parana; and the straightness of its course gives it the appearance of the principal river. The grand cataract of the Parana is in latitude twenty-four degrees, not far from the city of Cuayra; but is rather a series of rapids, for a space of twelve leagues, amidst rocks of tremendous and singular forms‡. This noble river is also studded

* The whole is probably a fable. B.

† This effect called *pororoca* is chiefly observable towards the Cape del Norte on the mouth of the Arowary. Condamine, p. 193. The letter of M. Godin to this author contains an interesting narrative of Madame Godin's navigation down the Maranon in 1769. She was perhaps as bold an Amazon as ever appeared on its banks.

‡ Dobrizhoffer, i. 206. This author, p. 188, seems rightly to assert that the Parana is the chief stream, which receives the Paraguay and Urucuay.

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with numerous islands, and Spanish vessels navigate to the town of Assumption, about 400 leagues from the sea. On the shores are often found geods inclosing crystals; but the natural history of the Parana is nearly as obscure as that of the Ucaial. The breadth of the estuary is such, that the land cannot be discovered from a ship in the middle of the stream.

3. Orinoco. The third great river in South America is the Orinoco, of a most singular and perplexed course. According to La Cruz it rises in the small lake of Ipava, north latitude five degrees five minutes; and thence winds almost in a spiral form, first passing to the south-east it enters the lake of Parima, and issues by two outlets on the north and south of that lake towards the west, but after receiving the Guaviari, it bends north, then north-east, till it enters the Atlantic ocean by an extended delta opposite to the isle of Trinidad; but the chief estuary is considerably to the south-east of that island. Many rivers of great size flow into the Orinoco; and in addition to its singular form there are other remarkable peculiarities. From the south-east of the lake of Parima, which seems to be a kind of inundation formed by the Orinoco, the White river, called also that of Parima, joins the Black river, and thence the great flood of the Maranon. Another stream, the Siaba, flows from the south-west of the lake into the Black river, and joins another stream, which directly connects the Maranon with the Orinoco. There is also a communication between the Black river and the Maranon, by the Joa Parana. Hence there are three communications between these great rivers; a circumstance so uncommon, that when one only was asserted by Spanish authors, it was rejected by geographical theorists as contrary to the usual course of nature, and Condamine was obliged to enter into a formal disquisition in order to re-establish it. A route laid down by La Cruz, that of Solano, Governor of Caracas, seems to confirm the authenticity of his intelligence concerning the environs of the lake of Parima; and little doubt can remain concerning these wonderful inland navigations, thus prepared by the hand of nature, and which in the possession of an industrious people would render Guiana, or new Andalusia, one of the most flourishing countries in the world.

The other rivers of South America are comparatively of small account, the chief being the Magdalena, running north to the Carribean sea, and that of St. Francis which waters a great part of Brazil. To the south of the great Parana there is the river Mendoza, and the Rio de los Sauzes or river of Willows; followed in the furthest south by the Chulclau and the Gallegos, the last entering the Pacific opposite to the Malouin or Falkland islands.

Mountains. The mountains of South America constitute some of the grandest objects in natural geography, being not only the most lofty on the face of the globe, but intermixed with volcanoes of the most sublime and terrible description. The extent is also prodigious, the Andes stretching in one line from the capes of Isidro and

The inundations are chiefly in December and January, rising about five or six yards above the islets. Falkner, p. 56.

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Pilares, in the southern extremity of the continent, to the west side of of the gulf of Darien, a space of not less than 4,600 miles, as they generally follow the windings of the coast, at the medial distance of about one hundred miles. The chief summits are near the equator, not far from the city of Quito. The best account of these celebrated mountains seems to be that given by Bouguer, one of the French mathematicians, who, 1735---1743, measured a degree near the equator, and who has published two views of their appearance near Quito.*

Chimborazo. Chimborazo, the highest of these mountains, about one hundred British miles to the south of Quito, and about ten miles to the north of Riobamba, was computed by these mathematicians to be 3217 French toises above the level of the sea, or 20,280 feet: about 5000 feet, or one quarter, higher than Mont Blanc. That part of Chimborazo which is covered with perpetual snow, is about 2,400 feet from the summit. But these mountains are elevated on the high plain of Quito, which constitutes more than one third of the computed height; so that considered as mere excrescences from the land they still yield to Mont Blanc.

The next in height is supposed to be the volcano called Cotopashi, estimated at about 18,600 feet, and situated about twenty-five miles to the south-east of Quito. Other grand summits are Pachincha, a few miles to the north-east of Quito; the Altar, and Sanga to the south-east of Chimborazo. In general the Andes here proceed in a double chain, the interval being the plain of Quito: to the western ridge belong Pichincha, Ilinissa, Chimborazo, &c. while the eastern is crowned by Cotopashi, the Altar, Sanga, &c. and this form continues at least for about 500 miles from the south of Cuenza to the north of Popayan.† Mineralogy was at that time an unknown science; and Bouguer only informs us that the bottom is clay, and the summit a mass of stones! The American Alps clothed with perpetual snow extend a great distance further to the north, towards the junction of the rivers Cauca and Magdalena: but about two degrees to the north of the equator they are not above one quarter the height. Further to the south they also greatly decrease in elevation.‡

* Figure de la Terre, Paris 1749, 4to. † Bouguer, xxxii.

‡ See Ulloa, i. 206. for an account of the desert of Chimborazo. It is surprising that in his *Noticias Americanas*, Madrid 1772, 4to. he gives no account of these grand features of nature. In Lentin's scale of the heights of mountains the Chimborazo is almost rivalled by the Descabesado, which seems unknown to Bouguer: the Antisana, a most lofty volcano, is delineated by that mathematician; but the Cavambe is also not mentioned by him, though all stated by Lentin as superior in height to Cotopashi. The mountain of Sanguay is a paramo or vast desert mountain, the summit always covered with snow: it is a constant volcano, and the explosions are heard at the distance of forty leagues. Ulloa, liv. vi. c. vii. According to Bouguer, p. l. the height of the freezing point is here 2440 toises above the level of the sea: and it would end at the height of 4300 toises, not from the cessation of cold, which on the contrary increases with the distance from the earth, but because no clouds nor vapors can ascend to a greater height. He considers, p. lv. the main chain of the Andes as terminating near the junction of the rivers Cauca and Magdalena, between which it proceeds from Popayan.

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According to the account of Humboldt, a German naturalist, who has lately visited a considerable part of South America,* there are three other remarkable chains of mountains which proceed from west to east parallel to the equator; and which by their height deserve the attention of naturalists, as much as the Carpathian mountains, or the Pyrenees, though it have been supposed that, on the east of the Andes, immense plains extend to the shores of Guiana and Brazil, and even to Buenos Ayres and Patagonia.

1. That of the Northern Coast, between nine and ten degrees of north latitude.

2. That of Parima, or the chain of the cataracts of Orinoco, from three to seven degrees north latitude.†

3. The chain of Chiquitos, between 15° and 20° of south latitude.

NORTHERN. The most northern, or that of the coast of Venezuela, is the most lofty, but the narrowest. From the high plain of Quito the great chain of the Andes extends, by Popayan and Choco, on the west of the river Atrato, towards the Isthmus, where on the banks of the Chagré, it only forms mountainous land about 1200 feet high. From the same Andes proceed several branches, one called the Sierra de Abibe towards the province of St. Marta.‡ This chain of the coast is restricted, as it approaches the gulf of Mexico, and cape of Vela, and afterwards runs due east towards the mountain of Paria, or even to the isle of Trinidad. The greatest height is in the two Sierras Nevadas of St. Marta, and of Merida.‖ The first being near 5000 varas or Spanish yards, and the second 5400 varas, about 2350 toises, or 14,000 English feet, above the sea. Several mountains of this chain are perhaps equal in height to Mont Blanc; perpetually covered with snow, and often pouring from their sides streams of boiling sulphureous water: and the highest peaks are solitary amidst mountains of little height, that of Merida is near the plain of Caracas, which is only 260 feet above the sea. The vallies in the branch on the west of

The same author, p. lxvi. observed stones of eight or nine feet diameter ejected from Cotopashi to the distance of more than nine miles. On the north-east of the Andes the rocks are perfectly horizontal, and often in grotesque forms resembling churches or castles. Similar appearances are remarked in Abyssinia. The desert summits called *paramos* in Quito are in Peru styled *punas*. Ulloa Memoires, i. 121. In Chili the Andes are not above a seventh part the height of those of Peru. Ib. 363. See Molina.

* Journal de Physique, Messidor an ix. July, 1801.

† These cataracts are at Maypura and Atures, north lat. 6° in the map of La Cruz; the Spanish term for a cataract being *raudal*, which rather implies a *rapide*.

‡ The mountains of St. Marta are covered with snow and visible from the sea. Ulloa liv i. c. 1.

‖ Our author's latitudes do not correspond with the map of La Cruz, who gives the Neveda of Merida between lat. 8° and 9°. Humboldt is an advocate for perpetual ranges. He should have said that a branch, the Sierra de Piriho, stretches towards Vela; while another chain extends north-east, giving source to many rivers, which flow into the Orinoco from the north; and perhaps winds along to Paria.

Condamine, in sailing down the Maranon, did not observe one hill for the space of two months after leaving the Pongo, till he saw the mountains of Guiana giving source to rivers that run north and south.

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the Lagoon of Maracaybo are narrow, and run from north to south That part which extends from Merida to the east has vales running east and west, formed by parallel ridges, one of which passes to Cape Codera, while the second is three or four leagues further to the south. Our author supposes that the wide plains were formerly lakes; but is too fond of bending nature to his theories, while he ought to have been content with the observation of facts.

The general height of the chain of the coast is from six to eight hundred toises, the Nevada of Merida, as already mentioned, 2350, and the Silla de Caracas 1316: lowering towards the east, cape Codera is only 176 toises. But this depression is only of the primitive rock, for there are secondary calcareous mountains from Cape Unara, which are higher than the gneiss, or foliated granite, and the micaccous schistus. These calcareous mountains, covered with calcareous freestone, follow this chain on its southern side, and increase in height toward the eastern point of the continent. The chain of the coast is more steep towards the north than the south; and there is a dreadful perpendicular precipice of 1300 toises in the Silla de Caracas, above Caravelledo, the northern part of this chain being perhaps broken by the gulf of Mexico.

Of Parima. The second chain, that of Parima, or of the cataracts of Orinoco, is little known, and was scarcely esteemed passable till within these thirty years, since the expedition of Iturriaga and Solano. The volcano of Duida is in latitude three degrees, thirteen minutes. This chain leaves the Andes near Popayan, and stretching west to east, from the source of the Guaviari, appears to extend to the north-east of that river, forming the cataracts of Maypura and Atures in the Orinoco, latitude five degrees, which are truly dreadful, but present the only passage yet opened towards the vale of Amazons. Thence, so far as can be judged from our author's confused description, this chain continued its course north-east to the river Caronis, the breadth being sometimes not less than 120 leagues: Humboldt must mean that branches occur of that length. Further to the east* the continuation is little known. The ferocity of the Guaicas and Guajaribos forbad any approach beyond the little cataract on the east of Chiguera, but Don Antonio Santos, disguised as an Indian, passed from the mouth of the river Caronis to the little lake of Parima, and disclosed the continuation of this range between four and five degrees north latitude, where it is about sixty leagues in breadth, dividing the waters which fall into the Orinoco and Esquibo from those that fall into the river of Amazons. Further to the east this range becomes still wider, descending south along the Mao, where the Dutch style a part of it Dorado, or the mountain of gold; being composed of bright micaceous schistus, which has given a like reputation to a small isle in the lake of Parima. To the east of Esquibo this range takes a south-east direction, and joins the granitic mountains of Guiana, which give source to the river of Surinam, and others. This last group of mountains is of great extent, the same gneiss being found at eight degrees, twenty minutes, and two degrees, fourteen minutes. This wide range is inhabited by a number

* He says between 68 and 60 West longitude from Paris.

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of savage tribes, little or not at all known in Europe.* No where does it seem to rise to an equal height with the northern range of the coast, the mountain of Duida, not far from Esmeralda, being reputed the highest, and, measured by Humboldt, was found 1323 toises above the sea; but it is a picturesque and majestic mountain, ejecting flames towards the end of the rainy season, and situated near a beautiful plain, covered with palm trees and ananas. Towards the east it seems to expire in broken rocks; but there is no appearance throughout of any secondary strata, the rocks being granite, gheiss, micaceous shcistus, and hornblende slate.

Of Chiquitos. The third chain of primitive mountains, or that of Chiquitos, is only known to our author by the accounts of those who have passed the Pampas. It unites the Andes of Peru and Chili with the mountains of Brazil and Paraguay, stretching from La Paz and Potosi and Tucuman through the provinces of Moxos, Chiquitos, and Chaco, towards the government of the mines, and of St. Paul in Brazil. The highest summits appear to be between fifteen and twenty degrees; the rivers there passing to that of Amazons, or that of La Plata.

Between these three great ridges are, according to our author, three immense vallies, that of Orinoco, that of the river of Amazons, and that of the Pampas of Buenos Ayres, from nineteen to fifty-two degrees south latitude, all opening to the east, but shut on the west of the Andes. The middle valley, or that of the Amazons, is covered with forests so thick, that the rivers alone form roads; while those of Orinoco and Pampas are savannas, or grassy plains, with a few scattered palms; and so level, that sometimes for 800 square leagues there is no inequality above eight or ten inches in height. In the northern plain the primitive rock is covered with limestone, gypsum, and freestone; while in that of Amazons the granite everywhere rises to day. The general inclination is to the north-west, which, according to our author, is the usual arrangement of primitive rocks. Petrifactions are uncommon even in the Andes, where there are sometimes patches of gypsum, and secondary limestone; while the range of Parima consists entirely of granite and other primitive rocks. But in a calcareous freestone of the northern ridges of the coast, Humboldt found vast numbers of shells, seemingly of recent petrifaction, as they are those of the sea, now nine leagues distant. The belemnite and ammonite seem unknown, though so common in Europe. In the plain of Orinoco petrified trees are found, in a course breccia.

Construction. Among the primitive rocks Humboldt mentions granite, which forms the chain of Parima; while in that of the coast it is covered, or mingled with gneiss and micaceous schistus. It is sometimes stratified in beds, from two to three feet thick; and sometimes contains large crystals of felspar. The micaceous schistus sometimes presents red garnets, and sappare; and in the gneiss of the mountain of Avila green garnets appear. Sometimes nodules of

* Our author's subsequent remarks shew that he is a stranger to the great map of La Cruz; and nothing can be more confused than his whole account, in which branches of mountains are confounded with the main chain.

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granite are found in the same substance, or, in gneiss consisting of finer grains gathered by some local attraction. In the range of Parima there occur large masses of most brilliant talc, formerly imparting such reputation to the Dorado, situated between the rivers Esquibo and Mao, and other mountains, which, like burnished gold, reflect the light of the sun. If Sir Walter Ralegh had reflected that all that glitters is not gold, he might have saved his fatal voyage to El Dorado. Smectite or soft jad is formed into idols; and Condamine discovered that variety of hard jad called Amazon stone, a name idly applied to the blue felspar of Siberia. Schistose chlorite also occurs; and beautiful hornblende slate rises through the streets of Guaiana, or S. Thome. Other substances are, decomposed felspar or kaolin, primitive limestone, plumbago; and there are veins of quartz which contain auriferous pyrites, and antimony, native gold, grey copper, and malachite. The copper mines of Aroa are alone worked, producing about 1500 quintals yearly. Slate is rare, but sometimes covers the micaceous schistus; and in the northern chain there are rocks of serpentine, veined with bluish statite. The grunstein of Werner sometimes occurs in that ridge.

Among the rocks called transitive by Werner, as connecting the primitive with the secondary, are trap, green slate, amygdaloid, and the schistose porphyry of that author, green with crystals of felspar. The secondary rocks are limestone, gypsum, argillaceous schistus, and freestone or calcareous sandstone, with coarse breccia.*

A practical German mineralogist, employed for some years in the mines of Peru,† informs us that the eastern spurs of the Andes sometimes present red and green granite, and gneiss, as towards Cordova and Tucuman; but the grand chain chiefly consists of argillaceous schistus, of various kinds of thick slate, bluish, dark red, flesh colour, grey, and yellow; on which, in many places, are incumbent strata of limestone, and large masses of ferruginous sand stone. Neither in Hungary, Saxony, nor the Pyrenees, had our author beheld mountains so irregular as the Andes, or broken into such alternate substances, revealing some prodigious revolution of nature. Amid the argillaceous schistus the metals sometimes occur in veins of quartz, sometimes in alluvial layers of sand-stone and iron sand. Near Potosi are irregular beds of large bullets of granite; and the celebrated mountain, so rich in

* At the end of Humboldt's paper is a sketch of a primitive and secondary rock, of the chain of the coast, and that of Parima. Both rest on massive granite often mingled with jad and plumbago. This is followed, in the Primary, by foliated granite, micaceous schistus with garnets, primitive slate with beds of native alum, slate mixed with hornblende, grunstein (which he calls primitive trap), amygdaloid, while the summit is schistose porphyry. In the Secondary, the mass of granite is surmounted by gneiss, with beds of primitive limestone; the micaceous schistus with schistose plumbago, and limestone; the same with beds of Lydian stone and petrosilex, gypsum, calcareous freestone. His plumbago seems to be hornblende.

† Tagebuch einer Reise, &c. A Journal of a Journey through Peru, from Buenos Ayres on the great river La Plata, by Potosi to Lima, the capital of the kingdom of Peru. By Anthony Zacharias Helms, Royal Spanish Director of Mines. 8 vo. pp. 300, Dresden, 1798.

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silver ore, is chiefly composed of a firm yellow argillaceous slate, full of veins of ferruginous quartz, in which some of the best ores are found. In passing the highest ridge of the Andes, between Potosi and Lima, Helms still found argillaceous schistus the predominant substance; sometimes with strata of sand-stone, sometimes with long extents of granite. Near the lake of Titicaca the Andes are of prodigious height, (this being the centre of the chain, and perhaps equalling the summits near Quito); and Helms observed in some places the basis of argillaceous schistus covered with alluvial layers of marl, gypsum, limestone, sand, fragments of porphyry, and even rock salt, yet rich silver occurs in abundance. Near Guancavelica the mountains are chiefly sand-stone, or limestone; but still equally high, and equally opulent. To the north of this place the ridge for a hundred miles, is said to be calcareous, yet fertile in metallic ores. According to our author the summits near la Paz are the highest of the Andes; but he did not travel so far as Quito.

In several European countries the metals chiefly occur in argillaceous schistus; but it is surprising to find this substance predominate in so lofty and extensive a range as the Andes, where upon the common theories granite might have been expected. It may be conjectured that this is the work of that prodigious subterranean fire issuing from so many volcanoes, and here, as would seem from the eruptions of mud combined with subterranean waters; for this mud is the very matter of argillaceous schistus, and thus ejected during thousands of years had become superincumbent on the granite which will probably be found on sinking deep shafts, and is perhaps the principal substance in such parts as are not volcanic. But on the contrary the eruptions of mud, may proceed from a dissolution of the primitive schistus; and in the formation of this globe nature seems to have studiously concealed her process: while from the attempts which have been made, we can only conclude that the reverse of the best theories may perhaps approach the truth.

In the subsequent description of South America, which must be restricted to narrow limits, the Spanish dominions will of course occupy the first place; and are followed by the Portuguese, French, and Dutch. A fugitive idea of the native nations shall be succeeded by an account of the islands belonging to this part of the continent.

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SPANISH DOMINIONS.

EXTENT.—GOVERNMENT.—POPULATION.—MANNERS.—LANGUAGE —CITIES.—COMMERCE.—BOTANY—ZOOLOGY.—MINERALOGY.— NATURAL CURIOSITIES.

EXTENT AND BOUNDARIES. THE possessions of Spain in the southern part of America, are of prodigious extent, from the Carribean sea to the most southern promontory, according to the Spanish geographers; but the English maps seem justly to regard the regions to the south-east, inhabited by the Tehuels, and other tribes confessedly independent, as excluded from the Spanish domain. In this point of view, the eastern shore, from the south of the great river Parana, is open to the settlements of any foreign nation, and on the west the Spanish boundary ends at the gulf of Chonos, south lat. 44°. The remaining length may be 3360 geographical miles; but the medial breadth is not above 900. The whole length of the Spanish possessions in America may be thus computed at more than 5000 geographical miles; though not equal in extent, yet far superior in every other respect, to the Asiatic empire of Russia. On the east the boundary between the Spanish possessions and those of Dutch and Portuguese, is sometimes ascertained by ridges of mountains and rivers; but often consists of an ideal line, observed upon a map at one glance, while a verbal description would be unnecessarily prolix. In general the Portuguese territory in South America, is perhaps equal in extent to the Spanish, compensating by its breadth, which includes the far greater part of the Maranon, for the deficiency in length.

GOVERNMENT. The Spanish territories are minutely divided into vice-royalties, audiences, provinces, governments, partidos, or departments, and missions, or parishes established among the savages. The enumeration would not only be complex and tedious, but unsatisfactory, as frequent changes occur. The grand divisions are the vice-royalty of Buenos Ayres, that of Peru which includes Chili, and that of New Granada in the north: the capital of the first being Buenos Ayres, of the second Lima, and of the third Bogota, or Santa Fe de Bogota north lat. 4°. The vice-royalty of New Granada was established in

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1718, and that of Buenos Ayres 1778: but the governments are too extensive, and ought to be subdivided, as the vigilance of one man cannot prevent the grossest malversations and oppressions; and, in the opulence of the income, duty is sacrificed to luxury.

Population. The general population of South America, being as already mentioned, about 13,000,000, it is probable that the Spanish possessions contain about 9,000,000. The use of spiritous liquors, and the small pox, with another endemial disease, which acts at intervals like a pestilence, obstruct the increase of the natives. The Spaniards and Creols are far more numerous in New Spain, than in South America, where it is probable that they do not exceed 2,000,000. The product of the mines of South America is supposed to be about 4,000,000*l.* sterling yearly; and the royal revenue perhaps amounts to 800,000*l.* But in Spain according to Mr. Townsend, the colonies are scarcely considered as affording any free income to the crown; when all the expenses incurred on their account are duly estimated.

Manners and Customs. The manners of the Spaniards in South America have been illustrated in many popular books of voyages. Among the native nations, the Peruvians are by far the most interesting, having in some instances advanced nearer to civilization than the Mexicans. The Llama, which may be called a small camel, had been rendered subservient to their industry; and their buildings, erected of stone still remain*. The history of the Peruvian monarchs is indeed vague and unsatisfactory, the noted Quipos somewhat resembling the Wampum of the North Americans, being brief and transitory records. The government of the Incas was a kind of theocracy, and the inhabitants revered a divine descent, not claimed by the Mexican monarchs. The religion of the Peruvians was that of love and beneficence; while the Mexicans seem, in their cruel rites, to have been wholly influenced by the fear of malignant deities. Some sacrifices of the smaller animals, and offerings of fruits and flowers, formed the chief rites of Peruvian superstition. The Mexican monarchy was founded by the sword, the Peruvian by superiority of wisdom; and the captives taken in war were not immolated, but instructed in the arts of civilization. An excellent writer justly pronounces, that the Peruvians had advanced far beyond the Mexicans, both in the necessary arts of life, and in such as have some title to the name of elegant†. Manures and irrigation were not unknown, though a kind of mattock formed the chief instrument of agriculture. Their edifices were sometimes of bricks hardened in the sun; but others were constructed of large stones, the walls however never exceeding twelve feet in height. The great roads between Cuzco and Quito are indeed slight and perishable, when compared with European exertions, yet become wonderful, when estimated with the other parts of savage America. Their weapons and ornaments also displayed no small degree of skill, particularly in cutting

* "While (says Mr. Pinkerton) of the earthen edifices of the Mexicans, even the ruins have perished." This is not correct. We have already seen, that many of the buildings of the Mexicans were of stone; and of these the ruins are still visible in various parts of America. B.

† Robertson, iii. 209.

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and piercing emeralds, a gem of great hardness. Amidst all these laudable qualities, it is to be regretted, that superstition led them to sacrifice numerous victims on the death of a chief, and a favourite monarch was sometimes followed to the tomb by a thousand slaughtered servants*. Had the conquest of America been effected by the Spaniards at a period like the present, when European warfare has lost half of its ferocity, the Peruvian monarchy might have been respected and preserved, for in the other parts of South America there is a superabundance of the precious metals to satiate the utmost wish of avarice. Whether the ruling people be chiefly cut off, or from the mere depression of slavery, it is impossible to discover in the manners of the Peruvian natives any marks of their ancient advancement.

LANGUAGE. The language of the ruling people in Peru was called the Quichua, and it is still cultivated by the Spanish clergy, as indispensable in the conversion of the natives. The sounds *b*, *d*, *f*, *g*, *r*, are wanting; but when the Spanish grammarians add the *x* and *z*, they forget that their own *x* is an *h*, or *sh*, and their *z* is equally expressed by ç. The grammar of this language, and it is said even that of the Tehuels, is nearly as variegated and artificial as the Greek, whence our wonder at the refinement of the Sanscrit may perhaps suffer considerable abatement. As specimens of this celebrated dialect of the Incas are very rare, a few shall here be selected†.

1	Huc	*The ears*	Rinri
2	Yscay	*To eat*	Micuni
3	Quimça	*The eye*	Naui
4	Tahua	*A fish*	Challhua
5	Chumpi picheca	*A foot*	Chaqui
6	çocta	*A friend,*	Cocho
7	Canchis	*Great*	Hatun
8	Puçac	*A hatchet*	Avri, champi
9	Ysaon	*Hair*	Caspa
10	Chunca	*The head*	Uma
100	Pachac	*A hog*	Cuchi
1000	Huaranca	*A house*	Huaci
The arm	Ricra	*Land*	Allpa
Beard	çunca	*Little*	Huchuy
Belly	Vicça	*A man*	Runa
Canoe	Huampu	*The moon*	Quilla
To die	Huanny, Pitini	*Mouth*	Simi
A dog	Allco	*Nose*	Cenca
To drink	Upiani	*Sea*	Atun cocha, mama cocha‡

* A system somewhat similar to this prevailed among the Natchez of North America. B.

† From the Arte y Vocabulario en la lengua general del Peru, llamada Quichua. Loy Reyes (Lima) 1614. 12mo. *pen. aut.* The Quichua is said to have been a new language established by the Incas. The total abolition of any words held ominous by the savages of South America is a singular circumstance in the history of language. See Dobrizhoffer, ii. It is also singular that the sound *mb* as *Mbao* seems only known in Africa and America. Humboldt observes that the language of the Caribs is general in latitude ten degrees, that of the Marisitans towards the equator. Pinkerton....The sound *mb* is not peculiar to Africa and America. Instances of it occur in some Asiatic languages. B.

‡ *Cocha* signifies a lake, and *mama* is mother.

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Sun	Inti	*A family*	Ayllu
Water	Unu, yacu	*The tongue*	Cailu
Woman	Huarmi	*King*	Capac
		Queen	Coya
These are chosen to correspond with Dr. Forster's list, which is alphabetical, and far from being well selected. Some others follow.		*A lance*	Chuqui
		A ship	Huampu
		People or *Town*	Llacta
		The hand	Maqui
River	Mayu	*Iron*	Quellay
Mountain	Puno, acha	*Gold*	Cori
Lake	Cocha	*Gold dust*	Chichi cori
Father	Yaya	*Silver*	Collqui
Mother	Mama	*Fire*	Nina
Husband	Coça	*Many fires*	Nina nina
Son	Churi	*Snow*	Riti
Brother	Huauquey	*Stone*	Rumi
Sister	Panay	*An emerald*	Umina
Sand	Aco	*The top of a mountain*	Uma
Good	Alli		
Bad	Mana alli	*Yes*	Y
The Andes	Anti	*No*	Mana
A sacrifice	Arpay	*Beauty*	çumay
Flesh	Aycha	*Love*	Cayay, manay*.

CITIES. The chief cities in Spanish South America are Lima the metropolis, Buenos Ayres, and Bogota. Lima was founded by Pizarro who called it the Ciudad de los Reyes, probably because the foundation was laid on the 6th January, the festival of the three kings. It is supposed to contain 54,000 inhabitants, little above a third part of the population of Mexico. The situation is in a pleasant and spacious vale, near a small river. The great square contains the viceroy's palace, and the cathedral. The streets are generally paved, and enlivened with little canals led from the river; but the houses are low on account of the frequent earthquakes. The churches and convents are rich and numerous, and there is an university of some reputation. Rain is seldom or never seen, the clouds being attracted by the summits of the Andes. The most dreadful earthquake seems to have been that of 1747, when the port of Callao was totally submerged, and of 4000 inhabitants only 200 escaped†.

Buenos Ayres was founded in 1535, receiving its name from the salubrity of the air. The population is supposed to be about 33,000. It is the great resort of passengers from Spain, who thence cross the country by Cordova and Tucuman to Potosi, there being an uninterrupted post-road, with post-houses, and relays of horses and carriages, across the country to Peru‡. Bogota is rarely visited by travellers,

* They want B, D, F, G, R, X, Z, yet the R is here, but it is to be softly pronounced. It is declined by altering the terminations, as Runa a man, Runap of a man, Runapac to a man, &c. The verbs have also moods and conjugations, the terminations sometimes extending to great length.

† Cuzco is nearly equal in size to Lima, and most of the houses are neatly built of stone. It was the ancient capital of the Peruvian monarchy. See Ulloa, liv. vii. c. xii.

‡ Montevideo is the only good port on the Parana, and is more strongly fortified than Buenos Ayres. Falkner, p. 64. An account of Buenos Ayres may be found in the Monthly Magazine, March 1803, from the *Viagero Universal*.

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and little is known, except its position on a stream which joins the river Magdalena.

Of the other chief towns Carthagena contains 25,000 souls; and Potosi about the same number*; Popayan above 20,000; Quito 50,000; Riobamba and Guayaquil about 18,000 each; Cuenza about 26,000. Other places of note are St. Jago, Conception, and Mendoza, in Chili, Santa Fe on the Parana, Oruro, La Paz, Arequipa, Truxillo and Pasto in Peru; Panama, Maracaybo, Caracas, and St. Thome or Guayana in the north. The manufactures of Spanish South America are inconsiderable, being chiefly coarse woolen cloths for the Indians and negroes, some cottons, hats, drinking glasses, &c.

COMMERCE. Among the exports are sugar, cotton, cocoa, Peruvian bark and Vicuna wool†. But the chief exports are from the mines, of which the following statements are given by Helms. From the official registers it appears that the coinage in Spanish America, from the first day of January to the last day of December 1790 was as follows.

	In Gold.	In Silver.	Total.
At Mexico	628,044 Pias	17,435,644 Pias	18,063,688 Pias.
At Lima	821,168	4,341,071	5,162,239
At Potosi	299,846	3,983,176	4,283,022
At St. Jago	721,754	146,132	867,886
Total	2,470,812	25,906,023	28,376,835‡

* So Robertson; but Helms, p. 121, computes the inhabitants of Potosi at 100,000 including the slaves. Hence this city would seem to be the most populous and flourishing in all the Spanish territory of South America. La Paz, according to Helms, has more than four thousand hearths, or twenty thousand inhabitants, being an elegant and clean town, chiefly trading in the noted tea of Paraguay. The population of Cuzco, the ancient capital, is also considerable, p. 145.

† Mercurio Peruano. Lima 1791.

‡ The piastre, not now coined, is generally valued at three shillings and sixpence, being at Madrid computed at eight rials, while the dollar of ten rials is estimated at four shillings and sixpence. The following is the state of the mines in the new vice-royalty of Buenos Ayres, as reported by Helms.

Names of Provinces.	Gold.	Silver.	Copper.	Tin.	Lead.
	Mines.				
Tucuman	2	1	2		2
Mendoza a Chile		1			
Atacama	2	2	1		1
Lipez } Porco }	2	1	1		1
Caranges	1	2	1		
Pacages or Berengueln		2	1		
Chucuyto		1			
Paucarcolla, Town Puno		2			

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To account for the great difference of produce from the mines of Mexico, and from those of Peru, Chili, and Buenos Ayres, Mr. Helms alleges the following reasons: 1. Because the kingdom of Mexico is much more populous than any other of the American provinces: 2. it is scarcely half the distance from the mother country, whence it is enabled the better to enforce obedience to the laws and regulations, habits of industry, good police, and economy: 3. the want of royal and private banks in Peru, where every thing is still in its primitive chaotic state: and lastly, on account of the great encouragement which the industrious miner readily obtains in every commercial house of Mexico. If, concludes Helms, the provinces of Peru, Chili, and Buenos Ayres, were in a similar favourable situation as that of Mexico, there is no doubt that in Peru alone, on account of its incomparably richer and more numerous gold and silver mines, four times the quantity of these noble metals might be obtained, and perhaps a still greater proportion, than what Mexico affords at present*.

Since the discontinuance of the galleons, and of the great fairs at Panama and Porto Bello, the commerce of Peru has been augmented by the arrival of merchant vessels from Spain by the way of Cape Horn. Yet, according to Helms, the freedom of the trade has overstocked the market with Spanish goods. As the Spaniards have no settlements in Africa, the numerous negroes in their American colonies were chiefly supplied by the Dutch, and by the English, under what is called the Assiento or Contract, settled in the reign of Anne; the consequences of which have been delineated by a masterly writer, to whose work the reader is referred, for more ample commercial details†.

The chief topics of natural geography have already been discussed in the general view of South America.

Zoology. A singular circumstance in the zoology is the great abundance of horses and cattle, though originally unknown to the new continent‡; these surprising herds having been multiplied from

Lampa		2			
Montevideo	1				
Chicas or Tarifa	4	5			1
Cochabamba	1				
Zicazica	2				
Lavicaja	4				
Omasuijos	4				
Avangaro	3				
Carabaya	2	1			
Potosi		1			
Chayanza	2	3	1	1	1
Mizque		1			
Paria		1		1	1
Total	80	27	7	2	7

* P. 357, 258. † Robertson's history of America, vol. iii.

‡ According to Molina, Chili possesses a new and peculiar species of horse, which the natives of the country call *Huemel*. It is the equus bisulcus of Gmelin, and differs from every other known species of the genus in the circumstance of its hoofs, which are cloven, somewhat like those of the ox. A more correct history of this animal is a *desideratum* in the natural history of South America; but the existence of the species seems to be well vouched for. E.

a few that were turned loose by the first settlers. The cattle are so numerous that they are hunted merely on account of the hides. An author who resided twenty-two years in Paraguay, informs us that they equal the Hungarian in size, the standard length of the hide being three ells?* The great numbers have lately been thinned by the thoughtless avarice of the hunters. Horses are also very numerous: and mules being indispensable in the alpine countries, where they cannot be reared, about eighty thousand are annually sent from the plains of Paraguay to Peru.† To procure this mixed breed young asses are clothed in the fresh skins of foals, and introduced to the mares as their own offspring. Flocks of European sheep also abound: but of this animal some species are peculiar to South America. Such is the *llama*, or more properly *runa*, for llama merely implies a beast or quadruped which resembles a small camel, and will carry any load under a hundred weight. The vicuna is somewhat smaller, with shorter and finer wool; and of a brown colour, while the others are various.‡ The guanaca, on the contrary, is a larger and coarser animal than the runa, and chiefly employed in the mining countries, where other animals could not pass the precipitous paths. Among the ferocious animals are distinguished those called by Buffon the jaguar, by other writers the tiger; and the cougar, by some called the American lion. The latter is of a reddish brown colour, while the former is marked with black spots upon a yellowish ground. But from Buffon's account of the jaguar it is evident that he only judged from a small animal, probably sent from French Guiana; for Dobrizhoffer informs us, that as the lions of Africa far exceed those of Paraguay (the cougars) in size and ferocity, so the African tygers yield in magnitude to those of Paraguay. He saw the skin of one killed the day before, which was three ells and two inches in length, or equal to that of a large ox; but he adds, the body is more slender than that of an ox.‖ According to the same author they kill and carry off oxen and horses; and he gives such singular instances of their strength as to evince the error of Buffon's theory.¶ Other animals are, the wild cat, the elk, the huanaco, or guanaca, already mentioned, the antbear, &c. In the great river Maranon there appears to be a species of hippopotamus.** In the alps toward Tucuman the condor is not unfrequent: it is a kind of vulture, with a red crest, the body being black, spotted with white. A species of ostrich is also found in the wide plains of Paraguay.

* Dobrizhoffer, i. 246. † Ib. 270.

‡ Ulloa, i. 440, in the Fr. i. 366. The pacos or alpaca seems to be a kind of vicuna. ‖ I. 283.

¶ Bouguer, p. xviii. says that the tygers are as large and fierce as those of Africa: they are happily few in number, one or two being sufficient to desolate a province. These with the tiger of Guiana marked with black longitudinal stripes, (Bancroft, p. 137.) seem unknown to Buffon, and other zoologists. Pernety, in his account of Bougainville's voyage, p. 141, observes that the tigers near Montevideo are larger and more fierce than those of Africa; a tame whelp four months old was two feet three inches in height.

** Probably nothing but the tapir. B.

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Botany. The botany of the Spanish territories east of the Andes is as yet wholly unknown to European science, it is only therefore from analogy that we imagine the vegetables of these extensive countries to resemble those which are natives of Guiana and Brazil. For the indigenous plants of Peru and Chili our principal authority* is the Flora Peruviana and Chilensis of Ruis and Pavon, and of this work not more than a fourth part is as yet published. We know from the reports of navigators and occasional travellers that the vicinity of the coast produces many of the Tropical fruits and vegetables, such as the cabbage palm, the cocoa nut, the chocolate nut, the cotton shrub, the pine apple, the canna, amomum, turmeric, plantain, and sugar-cane. But in the more temperate climate of the high plain of Quito, and upon the sides of the Andes, it is natural to expect plants of a hardier constitution. Perhaps the best known and most generally interesting of the trees are the several species of cinchona, from two of which at least that valuable medicine the Peruvian or Jesuits' bark is procured. The cardana alliodora is a large timber tree, remarkable for the strong smell of garlic emitted from the leaves and fresh wood. A kind of coffee, the coffea racemosa, is met with in the mountainous groves of the interior, whose berries are applied to the same use as the cultivated species. The large flowered jasmine and datura arborea diffuse their evening fragrance round the neighbourhood of Lima, and braided in the hair of the women give and receive a reciprocal charm. No less than twenty-four species of pepper, and five or six of capsicum, are reckoned among the Peruvian natives, besides several esculent kinds of solanum, of which the S. lycopersicon or love-apple and S. tuberosum or potatoe, are the best known and most esteemed. The tobacco and jalap abound in the groves at the feet of the Andes, and many of the ornamental flowers of the English gardens and greenhouses, such as the singular and beautiful calceolaria, the resplendent salvia longiflora, the graceful tropœolum or nasturtium, and the simple nolana prostrata, are indebted to these countries for their origin.

Mineralogy. The mineralogy of these extensive regions is universally celebrated as the most important in the world. In most accounts the mines of silver have been described at great length, while Brazil is considered as the chief country of American gold.

Gold. The noblest metal also abounds in the Spanish possessions here, as well as in Mexico: and Gmelin has specially enumerated the following places in Peru and Chili: Copiapo, Quasco, Coquimbo, Petorca, Ligua, Tiltil, Putaendo, Caren, Alhué, Chibato, and Huilli-Patagua.† Ulloa informs us that the department of Popayan abounds in mines of native gold; the richest being those of

* Mr. Pinkerton says, our "only" authority is the works of Ruis and Pavon. But some valuable notices concerning the vegetables of Chili are contained in the abbé Molina's compendio de la historia geografica, natural y civil del reyno de Chile, the Spanish translation of which appeared at Madrid, in the years 1788 and 1795. This work may also be advantageously consulted for much useful information concerning the zoology, mineralogy, &c. of Chili. B.

† Linnæi systema, iii. 379.

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Cali, Buga, Almaguar, and Barbacoas;* and there are also several mines in the noted district of Choco, some of which were abandoned on account of the abundance of platina, a more rare and singular metal than gold, but at first, as appears from our author and Bouguer, mistaken for an obdurate pyrites. Other gold mines were near Zaruma, within the jurisdiction of Loxa; and some in the government of Jaen Bracamoros. Near the village of Angamarca, in the jurisdiction of Latacunga, was a mine of prodigious value.† Gold is also found in the sand of many rivers that flow into the Maranon. But the state of the mines of Buenos Ayres above given, as published by Helms will convey a complete idea of this subject, and it thence appears that the silver mines are there far more productive than those of gold, except the produce returned to St. Jago de Catagoita, about thirty miles to the south of Potosi. Those of silver being more numerous, and more easily worked, have excited the attention of the indolent colonists.

Silver. The celebrated mountain of Potosi has presented, for two centuries and a half, inexhaustible treasures of silver; while the gold seems thinly scattered by nature, and has no where been discovered in such enormous masses. Hence, if the noted plain of Cineguilla in North America be excepted, there is hitherto no example of any gold mine eminently rich, far less rivalling the proud reputation of Potosi. This mountain, of a conic form, is about twenty British miles in circumference, and perforated by more than three hundred rude shafts, through a firm yellow argillaceous schistus. There are veins of ferruginous quartz, interspersed with what are called the horn and vitreous ores. Of a peculiar dark reddish colour, this mountain rises void of all vegetation, blasted by the numerous furnaces, which in the night form a grand spectacle.‡ This surprising mine was discovered, 1545, by Hualpa, a Peruvian, who in pursuing some chamoys pulled a bush, and beheld under the root that amazing vein of silver afterwards called *la rica* or the rich. He shared this discovery with his friend Huanca, who revealed it to a Spaniard his master; and the mine was formally registered 21st April, 1545.‖

Mercury. Another celebrated mine is that of mercury, indispensable in amalgamating the precious metals. While Mexico is supplied from Spain, Peru has the native product of Guan cavelica, a district and town not far to the southwest of Lima, near the great bend of the old Maranon. The cinnabar had been used by the Peruvians as a red paint; and the quicksilver was first detected about 1567. The

* I. 450. Engl. trans. or i. 574. Fr. trans.

† Darien produced the finest gold, but the mines were lost by a revolt of the natives, as has happened in several other provinces. Ulloa, liv iii. c. v. In Chili the most celebrated gold mine is that of Petorca, to the east of Santyago. Others are in Yapel, Liguia, and other parts of Chili mentioned by Ulloa, liv. viii. c. ix. In Coquimbo and Guasco the whole earth seems composed of minerals: and there are mines of excellent copper. Ib. Humboldt says all the rivers of the Caracas roll down gold.

‡ Notes to Ulloa, Memoires Philosophiques, ii 269.

‖ In the province of Carangas, about 70 leagues west from la Plata are found in digging in the sands, detached lumps of silver called *papas* (potatoes) being formed like that root. Ulloa, liv. vii. c. xiii. Near Puno was a celebrated silver mine, from which the pure metal was cut with a chisel Ib. c. xiv.

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mine is now so large that there are said to be streets, and chapels where mass is celebrated. This mineral seems also to be in argillaceous schistus of a pale red.*

PLATINA, &c. Platina is chiefly found in the mines of Choco and Barbacoas, in the vice-royalty of new Granada. Tin according to Helms is found at Chayanza and Paria; and there are also several mines of copper and lead. The chief copper mine was at Aroa; but the colonies are mostly supplied from the mines at Cuba. Among the other minerals may be mentioned the gallinazo stone, so called from its black colour, being a volcanic glass or obsidian, sometimes confounded with the Inca stone or mirror of the Incas, both being used as looking-glasses. According to Ulloa the Inca stone is of a leaden colour and soft, being probably a marcasite or pyritical mixture, not yet analysed. In the time of the Incas emeralds were also common, chiefly on the coast of Manta, and in the government of Atacames, where it is said there are mines which the Indians will not reveal, as they must encounter the labour of working them.† The river of Emeralds flows from the Andes to the north of Quito: and others of inferior quality are found near Bogota, where are the chief modern mines of Peruvian emeralds, justly preferred to all others, since those of Egypt have been neglected. Those found in the tombs are worked into spheres, cylinders, cones, and other figures, and pierced with great precision; but in what manner this was accomplished remains unknown. According to Ulloa rubies have also been observed in the jurisdiction of Cuenza. It is unnecessary to mention the abundance of sulphur, bitumen, and vitriol, or sulphate of iron, commercially called copperas.‡

NATURAL CURIOSITIES. The natural curiosities of all descriptions are numerous and grand. The volcanos, the Andes, the intersection of the chain by the Lauricocha or false Maranon, have already been described. Among the numerous cataracts, Bouguer mentions that of the river Bogota, which passes the city of the same name, also called Santa Fe, about eight leagues before it joins the Magdalena, said to be a vertical fall of more than twelve hundred feet.|| However this be, the various scenes among the Andes must be variegated with every feature of sublimity.

* Ib. 325. See also Ulloa's Voyage, liv. vii. c. xii.

† According to Bouguer, Figure de la Terre, p. xiii. the mountain which contained the emerald mines is still known, being about five leagues from the sea, on the south side of the river of Emeralds in the midst of thick forests. In his opinion, p. xiv. the kingdom of Peru never can have been very populous, even the old villages being at the distance of ten or twelve leagues.

‡ In the district of Macas, on the east of the Andes, are mines of *polvos azules*, translated *ultramarine*, but of dangerous access on account of the savages. Ulloa, liv vi. c. iv. Near the town of Conception in Chili are found quarries of shell on the tops of mountains fifty toises above the sea. Ib. liv. viii. c. vi. What is called Amazonian stone, worn by the females on the Maranon, is a hard green jad which resists the file; and it is difficult to conceive how they carved it. Condamine, p. 141.

|| Figure de la Terre, xci. Humboldt says that some caverns throw out flames: and near the coast of Paria there is a noisy volcano of air. Sometimes large plains are hollow; and in 1766, after earthquakes for eleven months, a plain opened on all sides, ejecting sulphurous water and bitumen.

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PORTUGUESE.

THE dominions in South America, held by the small kingdom of Portugal, extend from the frontier of Dutch Guiana, latitude three degrees north, to Port St. Pedro, south latitude thirty-two degrees, being thirty-five degrees, or two thousand one hundred geographical miles: and the breadth, from Cape St. Roque to the furthest Portuguese settlement on the river of Amazons, called St. Paul de Omaguas, equals, if it do not exceed, that extent. This vast territory, rivalling the empires of antiquity, is still more unknown than the Spanish possessions, partly from the want of science and curiosity, partly on account of the thick forests which cover the expansive plains of the Maranon, and its auxiliary streams. Though long in strict alliance with Portugal, we have little precise knowledge of Brazil; and still less of the interior country so absurdly called Amazonia, but more justly by the Spaniards the Land of the Missions. The chief city of Brazil was formerly Bahia or San Salvador, which has since yielded to Rio Janeiro. The others are Para and Cayta near the estuary of the Maranon, with a few small settlements on that river; Parnamboco, Sergippe, Paraiba, Villa Grande, &c. the chief settlements of the Portuguese being only thinly scattered along the shores. The fanaticism of the Spaniards and Portuguese is an invincible obstacle to the population of some of the finest regions of the globe; while by the free admission of all sects, as in the territory of the United States, industry and population would increase with surprising rapidity.

Brazil, as is well known, derived its name from the wood so called, which is mentioned by Chaucer, and was known for centuries before. It is now divided into eight independent governments, besides that of Rio de Janeiro, of which alone the governor retains the style of Viceroy of the Brazils:* the discovery and improvement of the gold and diamond mines, about one hundred leagues to the north-west having secured to Janeiro a decided preponderance. "But all the provinces are growing fast into opulence and importance. They manufactured of late several of the most necessary articles for their own consumption; and their produce was so considerable that the balance of trade began to be already in their favour; and remittances of bullion were

* Staunton's Embassy to China, i. 204.

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made to them from Europe, in return for the overplus of their exports beyond their imports*." From the same account it appears that the Portuguese settlers have shewn repeated symptoms of revolt from the parent country. The population of this large portion of South America has not been accurately detailed; but it would seem that the Portuguese and their descendants cannot amount to half a million, while the natives may be three or four millions†. The diamond mines belong exclusively to the crown: and one-fifth of the gold is exacted. There are also numerous taxes and impositions, which instead of enlarging the revenue are the grand causes of its diminution; and the expenses of government consume about one-third of the million sterling, which Brazil is supposed to yield to Portugal‡.

MANNERS. The European settlers are in general gay and fond of pleasure; yet, as at Lisbon, extremely observant of the ceremonies of religion, or rather of the etiquette of the Virgin Mary, who is stuck up in a glass case at every corner. Cloaks and swords are generally worn by the men. The ladies have fine dark eyes, with animated countenances, and their heads are only adorned with their tresses, tied with ribbons and flowers. The convents and monasteries are numerous, and the manufactories rare. Labour is chiefly performed by slaves, about 20,000 negroes being annually imported; the price about twenty-eight pounds, while in the West Indies it is seventy; and even the monks and clergy keep black slaves. The indigenes are said to be irreclaimable savages, under the middle size, muscular, but active; of a light brown complexion, straight black hair, and long dark eyes They chiefly subsist apart, on the coast between Janeiro and San Salvador. Their language has not been investigated by the incurious Portuguese‖, who seem destined by nature to cover the faults of the Spanish colonists, and to evince, that even European nations may be found destitute of knowledge and intelligence**.

TOWN OF JANEIRO. The harbour of Rio Janeiro is capacious and excellent; and surrounded by a fertile country. It is protected by the castle of Santa Cruz, erected on a huge rock of granite. On the west is the city of St. Sebastian, commonly called Rio de Janeiro, built on a tongue of land, the hills and rocks behind being crowned with woods, convents, houses, and churches††. On a small isle are a dock-yard, magazines, and naval store houses; and there are several other isles in the harbour behind the town. The streets are generally straight

* Staunton's Embassy to China, i. 204.

† According to Staunton, i. 195, all the whites in the Brazils were computed at 200,000, the negroes 600,000. Probably the natives do not exceed one million.

‡ Ib. 208.

‖ The dialects of different Brazilian tribes or nations have been examined with some care. Some striking affinities between them and various North American, as well as Asiatic languages, have been detected. B.

** The ruling people in Brazil were the Tupinambas. See d'Acunha and Condamine. For the Mamaluks of St. Paul, a kind of Buccaneers, see Dobrizhoffer, i. 179. The language most widely diffused is the Quarantic, or Guaranis. Ib. ii. 210.

†† Staunton, i. 175.

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and well paved. Water is supplied by an aqueduct, on the Roman plan; for, notwithstanding the name, there is no river of any note. The shops were full of Manchester goods, and English prints. Yet the situation of this beautiful city is said to be unhealthy, owing to the exhalations from the primitive inland forests. There are manufactures of sugar, rum, and cochineal; and several districts produce cotton, indigo, coffee, cacoa or chocolate, rice, pepper, and the noted Brazilian tobacco. The red, or Brazil wood is the property of the crown. The natural history has been little explored: the circumjacent rocks are granitic, white, red, or deep blue, the last being of a close and hard texture.

Mines. Concerning the celebrated mines of Brazil there is little information. They are situated in the mountains which give source to many streams that flow north and south into the river Tocantin, on one side, and the Parana on the other, but there are mines of gold as far inland as the river Cuyaba, which flows into the Paraguay, and even near the river Ytenas.* The diamond mines are near the little river of Milhoverde, not far from Villa Nova do Principe, in the province of Serro de Frio, south lat. according to la Cruz 17° about long. 44° west from London. This singular substance is not certainly known to be produced in any other part of the world, except Hindostan, and chiefly about the same north latitude 17°; but the diamonds of Brazil are not of so fine a water, being of a brownish obscure hue. In the northern provinces of Brazil there are numerous herds of wild cattle, which are slaughtered for the sake of the hides. The river of St. Francisco is remarkable for passing a considerable way under ground, after it has attained a great size.†

Botany. The jealousy and inertness of the Portuguese government have effectually prevented any regular and scientific account of the natural productions of their vast and opulent dominions in South America; and the few scattered fragments of Brazilian botany are chiefly to be collected from the journals of those navigators who have touched at Rio Janeiro, and from the flora Lusitanica of Vandelli, which contains a few plants of Brazilian origin. The esculent plants are such as are common to all the tropical regions of America, among which may be distinguished the plantain, the banana, the cocoa nut, the chocolate nut, the yam, potatoe, casava, together with numerous species of melons and gourds. Of fruits the number is scarcely to be reckoned; the principal of them however, such as the pine apple, the mango, and the tamarind have already been repeatedly mentioned in the account of the botany of the East and West Indies. The warm aromatic plants that are found here in a truly indigenous state, and are much used by the inhabitants as condiments to their food, or the basis of various drinks, are the ginger, the turmeric, several species of pepper, American coffee, capsicum or Guinea pepper, and the wild cinnamon (Laurus canella). Several medical plants of high estimation, though not peculiar to Brazil, yet grow here spontaneously and in abundance; these are the important ipecacuanha (callicocca ipecacuan-

* Others are near the river Peixe and Saguitinhonha, the Riacho-Fundo, and Guarapara in St. Paul's. M. S. Inf.

† Adams in Ulloa, English translation, ii. 829.

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ha), the contrayerva, the Indian pink, (spigelia anthelmia) the mechoacan, the jalap, the amyris yielding the gum elemi, and the guayacum. Woods for ornamental cabinet work, or for the use of the dyers, which are at present furnished by the more enterprising activity of the Dutch, French, and English colonists of Guiana and the West Indies, might be procured in equal perfection and variety from Brazil; such are the logwood, fustic, mahogany, ebony, Brazil wood, rose wood, sattin wood, and a multitude of others. The merely ornamental plants are almost wholly unknown, but the Brazilian myrtle, the scarlet fuschia, and the incomparably splendid amaryllis formosissima, compose a most promising sample of the hidden treasures of this delightful country.

FRENCH.

CAYENNE. THE French settlements in Guiana were first formed about the year 1635, and extend from the mouth of a small river called Amano, west, to another called Aracara east, though recently the limit was attempted to be extended, at the expense of the Portuguese, to the estuary of the Maranon. On the south the line seems arbitrary; but the whole extent does not exceed 350 British miles in length, by 240 in breadth. The chief town is on a small isle called Cayano, whence the whole territory is commonly styled Cayenne. The soil and climate in general seem unexceptionable; but the situation of the town being ill chosen, in a swampy isle, its disadvantages have been laxly ascribed to the whole possession. In the town are about 1200 white inhabitants, exclusive of the garrison. This colony seems to have been always neglected by the parent country; and the inland parts remain obstructed by thick forests and underwood; and during the rains many parts are inundated. The dry season is from June till October, and the heaviest rains in our winter months. The Cayenne pepper is a noted product of this country, and the inhabitants using it to excess, a considerable quantity is always imported from Peru. Other products are sugar, cocoa, vanilla, and indigo.

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DUTCH.

THE Dutch possessions in Guiana commenced in 1663; but four years afterwards they were expelled by the English, whose descendants form a part of the colony, resumed by the Dutch in 1676. Dutch Guiana is to the north-west of the French settlement, and is often called Surinam from a river of that name on which the capital is situated. The length south-east to north-west is about 350 British miles, along the shores of the Atlantic; but the breadth only 160. The chief towns are Paramaribo, on the west bank of the Surinam, also called the Zeeland river, and New Middleburg near the north-west extremity of the colony: Demerara is a settlement on a river of that name. The white inhabitants of the capital are computed at 1800. The largest river is the Esquivo north-west which receives the short stream of the Demarara. The Berbiz and Corentin are also considerable rivers. An American medical gentleman, who resided here for some years, has published an account of the natural history of Guiana; and captain Stedman, who was employed in reducing the revolted negroes in 1774, has added yet more largely to our knowledge.* But the restricted nature of this work will only admit a few brief hints. The wet and dry seasons alternate, each for three months. No mines have been discovered by the Dutch, who always prefer certain returns; and are far from being in sufficient force to contest the inland parts with the savages, and Spaniards. Yet from the river Esquivo there is no difficult access to the lake of Parima, the fatal object of the wishes of Sir Walter Ralegh.† Bancroft confesses that

* Bancroft's Natural History of Guiana 1769. 8vo. Stedman's Surinam, 4to.

† He attempted to penetrate by the river Caroni, which rises north of the lake and flows into the Orinoco. The sands of this lake were supposed to be of gold, and in the vicinity was the fabulous golden city Manoa del Dorado. Such fables display the imagination of the early Spanish writers, the natives of Guiana being mere savages who never saw a village, and even the scite of the supposed city is totally unknown to La Cruz. Near the lake of Parima are the high mountains of Mei. Bouguer mentions that the rocks in this part of South America often wear the aspect of towers and towns; and some such rocks of talc or micaceous schistus occasioned this romance, at which the fate of Ralegh's expedition, and of that learned commander, forbids us to smile.

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they never penetrate even the lower forests. The silk cotton tree is often twelve feet in circumference, and hollowed into canoes of considerable burden. The Lauba is a peculiar amphibious animal, but of small size, and what is called the tiger is of a greyish brown, variegated with black longitudinal stripes from head to tail: our author adds that they are somewhat less than those of Africa; but the course of the stripes indicates a different species. One snake is described thirty-three feet in length, and three feet in circumference. The natives are of a reddish brown or copper colour, like the other American tribes. Those towards the coast are Caribbees, who being called in as auxiliaries to suppress a negro revolt, devoured the bodies of the slain.* Our benevolent philosophers, who argue against the existence of cannibals, might as well deny the existence of savages; but nothing is more absurd than a wise theory of human affairs, which are neither wise nor theoretical. The Worros are another maritime tribe; but the Arrowaks are the most distinguished by elegance of form, and mildness of disposition. They believe in a supreme deity, and in inferior malign spirits†, called Yawahoos. The priests or magicians are styled Peiis, the distinction being hereditary.

Botany. There are more materials for the botany of Guiana collected by the French, Dutch, and English settlers, than for any other part of South America; and in consequence of the swampy soil and moist atmosphere of this region, it presents a vigiour and wild exuberance of vegetation, perhaps without parallel. All the usual tropical productions, except those that delight in dry and sandy tracts, are found here in full perfection; the names and qualities of these however we shall not again repeat, but proceed to the notice of those which are more properly characteristic.

Besides the common species of palms, there are two which are reckoned almost peculiar to this part of America, but which, together with many other of the native plants of Guiana, have not yet found their way into the Linnæan system. One of these, called the cokarito palm, is remarkable for its hard splintery wood, of which the small poison arrows are constructed. The other, the manicole palm, grows only in the deepest and most fertile soil, where it attains the height of fifty feet, while its stem in the thickest part is scarcely nine inches in diameter. The annotta (bixa orellana) seems to be here in its favourite climate, as appears from its magnitude of growth and brilliancy of colour. The quassia, whose intense bitterness is become of late but too familiar to English palates, and the quassia simarouba, a medicinal drug of great efficacy, are also natives of Terra Firma; nor among the materials which the healing art derives from this country ought we to omit the mention of the ricinus or castor oil nut, the cassia fistula, the palm oil, the cowhage (dolichos pruriens), the balsam of capivi, and ipecacuanha. An herbaceous plant called troolies grows here, whose leaves are the largest of any yet known; they lie on the ground, and have been known to attain the almost incredible length of thirty feet, by three feet in width: so admirable a material for covering has not

* Bancroft, 260.

† As do the Indians in every part of the two Americas. B.

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been bestowed on this country in vain; most of the houses are thatched with it, and it will last some years without requiring repair. The singularly elastic gum called caoutchouc is produced from a large tree inhabiting French Guiana, and here it is used for vessels of various kinds and for torches. A small tree called caruna yields a farinaceous nut, from which the slow poison of the Accawau Indians is prepared, the certain though protracted instrument of jealousy or revenge. Still more certain, because more rapid, is the Ticuna poison, the dreadful equal of that from Macassar: it is prepared from the roots of certain climbers called nibbees, which inhabit the entangled forests of these immeasurable swamps, and are a worthy shelter to the panthers, the serpents, and all those monstrous and abominable reptiles that generate and batten in this pestilential atmosphere.

NATIVE TRIBES,

AND

UNCONQUERED COUNTRIES.

SOME account of the Peruvians has already been given, and the names of the savage tribes of South America are so numerous, that they might be counted by hundreds. Nor has any classification yet taken place according to languages; when probably these numerous families might be reduced to five or six denominations, as has been recently effected in arranging the tribes of Siberia. It was believed that Guiana contained a considerable nation, with cities and towns; but on the contrary, it is divided among numerous tribes, among which are many of the Caribs or Caribbees, the most ferocious of savages. The nations so marked in the map of La Cruz, are distinguished from the strolling families, but are merely tribes from two to five thousand

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souls.* Of the indigenes of Darien a minute account has been given by Wafer, and of the Caribs by Edwards, of the Teheuls or Patagonians by Falkner. A German missionary, who resided twenty-two years in Paraguay has published curious details concerning the Abipons, whom he calls a warlike nation, but who only constitute a tribe of about five thousand, on the Rio Grande, which joins the Paraguay near its union with the Parana.

ABIPONS. The Abipons being less known to the English reader, some account of them may be selected. They are rather a warlike race, and by a novelty in American manners chiefly cavalry, securing and taming the wild horses introduced by the Spaniards; and in the same quarter the Mocobs, Tobas, and Aucas are also warlike and independent tribes. In this part of America greater fairness of complexion seems to prevail, than in the exterior provinces; and the women approach the tint of Europeans. The Abipons were anciently named Callegaes by the Spaniards, on account of their singular practice of eradicating the hair over their foreheads, so as to produce the appearance of baldness; but their features resemble the European, and the nose is commonly of an aquiline form.† They carefully eradicate the beard, originally small; and mark their foreheads and temples with particular scars, by way of ornament. The males are accustomed from childhood to the use of the bow. Hunger alone dictates the time to eat; and they consume vast quantities of animal food. Personal cleanliness is preserved by frequent bathing in the lakes and rivers. They have no idea of a supreme deity, but acknowledge an evil demon whom the commonly attempt to flatter by calling him their uncle. Their magicians are called Keevet, and they have great power as usual among savage tribes, a tribute of ferocity to knowledge.‡ Polygamy is allowed but not frequently practised; and the babe being suckled to the age of three years, the mothers frequently destroy their offspring, that they may devote their attention to their husbands. Our author, an unprejudiced German, ridicules the idea of Spanish cruelty, and imputes the thinness of the population to this, among other causes. They have no idea of a monarch, but are ruled by many caziks, whom they call *capitas*, from a Spanish term: and are not advanced to the Agricultural state; but they are not cannibals, like some of the surrounding nations. In discussing the language of the Abipons, our author has observed that the number of tongues in Paraguay exceed credibility, not merely dialects, but radically and totally distinct. The same ideas were entertained concerning those of Siberia and Tatary, till they were more completely studied. The

* The nations are marked *N.* the families Y. for *Yndios* or Indians. Humboldt in a letter to Fourcroy, says that the Otomacs on the Orinoco subsist, for months on a kind of fat earth! On the river Caskiara, under the equator, no human being is to be seen for the space of 130 leagues. He mentions a nation who live on ants, and a colony would be useful in Africa or the West Indies. His map would be valuable, if he have made astronomical observations, as he says, in fifty-four places. See Monthly Magizine; August, 1801.

† Dobrizhoffer, ii. 15, 21, &c.

‡ The Teheuls style the chief demon Elel or Balichu, the inferior demons Quezubu; the Brazilians and Quaranians style the demon Ananga. Ib. 100, 101.

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Quaranian language seems one of the widest; and that of the Abipons resembles that of the Mocobs and Tobas. The most peculiar sound is a guttural, composed of *r* and *g*, which seems to resemble the *clapis* of the Hottentots; and the words are often very long, as among the savages of North America. They use the masculine and feminine gender, and decline the nouns by prefixes. The additional information subjoined by our author, concerning some other American dialects might be useful in a general survey of that obscure subject. The Abipons seldom marry till the husband and the bride have exceeded their twentieth year; and the lady is purchased from her relations at the price of four horses, and woolen cloths of various colours, somewhat resembling Turkey carpets. They pretend to expedite the birth by a mixture of cabbage juice and wine; and on the birth of a cazik's eldest son many ceremonies ore observed. From the thickness of the skin, or some other cause, the small pox is pestilential to the indigenes of America. The Abipons chiefly bury their dead under the shade of trees; and the horses of a chief or warrior are always sacrificed on the occasion. The bones are afterwards disinterred, as among the Tehuels, and carried to a considerable distance*. They have rendered themselves formidable to the inland colonists by their warlike spirit; and are armed with spears five or six ells in length, and with arrows sometimes pointed with iron.

The extremities of South America, towards the strait of Magalhaens, may, as already mentioned, be regarded as independent. Towards the east are vast saline plains, called by the Spaniards Comarca Desierta, or the desert territory, whence the desert of Comarca in our maps. The natives of this region are described by Falkner, who says that a cazik of the Puelches or Patagonians, with whom he was acquainted was seven feet and some inches in height.

Araucanos. The Moluches form another nation or tribe called by the Spaniards Araucanos†. The Puelches, by his account, are divided into three or four tribes, the most southern being the Tehuels, extending on the east to the strait; as the Huilliches, a tribe of the Moluches, do on the west. The Tehuels are the proper Patagonians, and may be called the Tatars of South America; being wandering warriors, but courteous and humane. The dead among the Moluches are buried in square pits, in a sitting posture, with their weapons and drinking utensils; and an old matron annually opens the grave to cleanse and clothe the skeletons. Around are those of the slain horses, supported with props. The Tehuels, after having dried the bones of their dead, transport them to the desert on the sea coast, where they are placed in huts or tents, surrounded by the skeletons of their horses; but the latter practice must be of comparatively modern date. These tribes have hereditary caziks called Elmens or Yas: and

* A similar custom prevails among some African tribes: and the worship of the Pleiades, known in some parts of America, as also practised in Africa where they are understood to indicate the approach of the rainy season.

† The *Araucanos*, that is *insurgents*, extend from the river Biobio, lat. 37, to the river Callacalla, lat. 40. See the map in Molina, *Storia Civile del Chili*. Bologna, 1787, 8vo.

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they sometimes choose an Apo, or commander in chief, whence they are more formidable to the Spaniards than the northern tribes.

PATAGONIA. The wives are sometimes bought very young, at the price of beads, cascabels, (or little hawks' bells,) garments, or horses: and polygamy is common. According to our author, the language of the Moluches is more copious and elegant than could have been expected, the verbs having three numbers, and as many tenses as the Greek The maps published by our author are certainly erroneous, and bear little resemblance to that of La Cruz, except in the position of the tribes; but it appears from Dobrizhoffer that the author, Thomas Falconer or Falkner, was a well known missionary in South America. The singular aspect of Patagonia, delineated with innumerable streams ending in little lakes, may well appear, (without the assistance of La Cruz, who has only represented four of that kind,) as foreign to the course of nature. Yet this country has many singularities. There is an immense tract of territory impregnated with nitre, about 600 miles in length and 150 wide, on the south and west of the river Parana, and even to the junction of the Paraguay, all the springs and rivulets being more or less saline. No productive mines have yet been discovered, except some of silver, near Mendoza, at the bottom of the Andes. "The rivers that wash this country all come from the high mountains of Yacanto, or Sacanto, Champachin, and Achala on the west of Cordova, which are little inferior in height to the Andes of Chili, and are kind of branches of those of Peru." That part of the Andes which lies west of Mendoza is of a vast height, and always covered with snow; and there are numerous volcanos in the southern part of the Andes, as that of St Clement, latitude forty-six degrees, and others in a continued progress to latitude thirty-one degrees. The Casuhati is a high chain of mountains, part of a triangle, one side extending to the Andes, another to the strait of Magalhaens.

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ISLANDS BELONGING TO SOUTH AMERICA.

JUAN FERNANDEZ. THESE shall be traced from the west towards the east. The desert isles of Galapagos have already been mentioned in the account of Polynesia, or the islands in the Pacific; and that of St. Felix is of no consequence. The isle of Juan Fernandez, so called from the first discoverer, is only about four leagues in length, with an anchoring place on the northern coast, which is diversified with many beautiful kinds of trees. The southern part is precipitous and barren; but there are some hills of a red earth approaching to vermillion. Many antiscorbutic plants are found on Juan Fernandez, which is celebrated in the voyage of Anson.

There are two remarkable archipelagos towards the southern extremity of this continent. That styled the gulf of Chonos, or the archipelago of Guaytecas; and that called the gulf of the Holy Trinity, or the archipelago of Toledo.

CHILOE. The most remarkable isle in the former is that of Chiloe, about 140 British miles in length by thirty in breadth, but almost divided in the middle by bays or creeks. The chief harbour is Chacao on the north, and at Calbuco there is a corrigidor, nominated by the president of Chili: there are also two monasteries and a church.* The isle of Chiloe is said to be well peopled with Spaniards, mulattoes, and converted savages. In the second archipelago, which approaches the antarctic frosts, is the island of St. Martin, in which there seem to be some Spanish settlements or factories: and not far to the south begins that broken series of wintery islands, called the Terra del Fuego, from two or more volcanoes, which vomit flames amidst the dreary wastes of ice.

TERRA DEL FUEGO. In the map of La Cruz the Terra del Fuego is divided by narrow straits into eleven islands of considerable size. In their zeal for natural history, Sir Joseph Banks and Doctor Solander had nearly perished amidst the snows of this horrible land; but they found a considerable variety of plants. The natives are

* Ulloa, ii. 264.

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of a middle stature, with broad flat faces, high cheeks, and flat noses, and they are clothed in the skins of seals. The villages consist of miserable huts in the form of a sugar loaf: and the only food seems to be shell fish. This dreary region is not however so completely oppressed by winter, as has by some been imagined, the vales being often verdant, and enlivened with brooks, while a few trees adorn the sides of the hills. The isle called Statenland is divided from the Terra del Fuego by the strait of Le Maire. Here also Captain Cook observed wood and verdure. So much more severe is the cold in the antarctic region, that these countries only in lat. 55°, or that of the north of England, are more frozen than Lapland, in lat. 70°.

FALKLAND ISLE, OR MALOUINS. To the north-east are the islands called Falkland by the English, but by the French Malouins, from the people of St. Maloes whom they esteem the first discoverers.* In 1763 the French having lost Canada, turned their attention towards these islands, as an American settlement in another quarter; and the account of Bougainville's voyage for that purpose, published by Pernety, contains ample details concerning these islands. There are two of considerable size, each about forty miles square. The soil and climate do not appear to be laudable, but there is a considerable variety of fowls and fish; and the plants seem somewhat to resemble those of Canada. The walruss, and other animals of the seal kind, frequent the shores. In 1764 Commodore Byron was sent to take possession of these islands, which were undoubtedly first discovered by the English; and a little establishment was made at a place called Port Egmont, but being found of little or no value they were in a few years ceded to Spain. The soil is marshy, and even in summer there are perpetual storms: and the Spaniards seem only to retain a small factory on the north.

GEORGIA. In this department may also be arranged, an island of considerable size to the south-east of the Falkland islands, discovered by La Roche in 1675, and afterwards named Georgia by Captain Cook, who explored it with some attention in 1775. It may be called a land of ice, presenting rocks and mountains of that substance, while the vales, destitute of trees or shrubs, are clothed with eternal snow; the only vegetables being a coarse species of grass, burnets, and lichens. The rocks are of blackish horizontal slate, perhaps approaching to hornblende. The lark, a hardy and universal bird, appears here as well as at Hudson's Bay, and there are numbers of large penguins and seals. Still further to the south-east are, if possible, more dreary lands, more properly styled the southern Thule, than the Sandwich islands, a name already bestowed on a very different country. These

* The name of Falkland is said to have been given by Captain Strahan in 1639, probably in honour of Viscount Falkland. From Pernety's account p. 226, there is little herbage except on the north-east and east, the southern antarctic winds being extremely cold. The rocks are of quartz, with some pyrites and marks of copper. Grey and reddish slate is common, with red and yellow ochres.

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islands may be styled the southern throne of winter, being a mass of black rocks covered with ice and snow.

Among the few islands to the east of South America, may be mentioned that of Ascension or Trinidada, and that of Ferdinando Noronha; that of Saremburg may also be regarded as an American isle, while Tristan da Cunha rather belongs to Africa.

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AFRICA.

EXTENT.—ORIGINAL INHABITANTS.—PROGRESSIVE GEOGRAPHY.—RELIGION.—CLIMATE.—RIVERS.—MOUNTAINS.—DESERTS.

EXTENT. THIS continent is, after Asia and America, the third in size; but in political and ethical estimation is the last and meanest of the four great divisions of the earth. From the southern extremity to the Mediterranean are about seventy degrees of latitude or 4200 geographical miles. The breadth, from 18° west to 51° east, may be assumed on the equator at 4140 geographical miles. The name is supposed to have spread by degrees from a small province, in the north, over the rest of the continent.

ORIGINAL POPULATION. In the central parts on the south the population appears to be indigenous and peculiar, these being the native regions of the negroes, whose colour, features, and hair, distinguish them from all the other races of mankind. In the northern parts there have been many successions of inhabitants, the Egyptians and Abyssinians being of Arabian extract; while further to the west the Carthaginians passed from Syria: and according to Sallust, who refers to Punic manuscripts, other maritime parts were peopled by the Medes, Persians, and Armenians. Yet his derivations seem rather fanciful; and there is little certainty except with regard to the Carthaginians. The original inhabitants of the northern parts appear to have been, in all ages, radically distinct from the negroe race, from whom they were divided by the great desert of Zaara; and in the eastern parts the latter were yet further repelled, by the Arabian colony which settled in Abyssinia.* These northern inhabitants sent

* Other ancient Arabian colonies seem to have penetrated far to the south, and are traced in Madagasgar and the opposite shores. The name *Kaffers* or *Unbelievers*, is vague, and ought to be discontinued.

The actual population of Africa cannot exceed thirty millions; or perhaps even twenty.

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considerable colonies into Spain; and from the Roman historians it appears that they had made some little progress in the arts of life. Even Herodotus is no stranger to these two distinct races of mankind.

The Romans appear to have explored the north of Africa as far as the river Nigir; and they established flourishing colonies in many parts. Upon the fall of their empire the Vandals of Spain passed into Africa, A. D. 429, and established a kingdom which lasted till A. D. 535. In the following century the Mahometan Arabs subdued the north of Africa; and under the name of Moors constitute a great part of the present population. There have been recently discovered in the interior some nations or tribes of a copper colour, with lank hair; but the geography of this country is too imperfect to admit of precise illustration of these topics.

Progressive Geography. The progressive geography of this continent might supply topics for a long and interesting dissertation. Herodotus, whose African geography has been amply illustrated by Rennell, was no stranger to the northern parts, from Mount Atlas in the west to the Ethiopians above Egypt; and specially mentions the great central river or Nigir, as running towards the east. Concerning the voyage of Hanno the Carthaginian, the learned have not agreed; and far less concerning the voyage said to have been performed by the orders of Necho king of Egypt. Suffice it here to observe, that Rennell supposes the ancient knowledge of the African shores to have extended to Sherboro Sound, to the south of Sierra Leone; while M. Gossellin restricts that knowledge to the cape and river of Nun, which he supposes to be the Nia of Ptolemy.* Of the two opinions that of Rennell has certainly a greater claim to probability; but perhaps the truth may be in the middle, and the knowledge of Ptolemy may expire at Cape Blanco, or perhaps be extended to Cape Verd. D'Anville supposes that the mountains called the Chariot of the Gods were those of Sierra Leone; thus coinciding with Rennell.†

* Recherches sur la Geographie des Anciens. Paris, 1798, 4to. These two volumes only relate to the geography of Africa.

† From Gosselin's Recherches, i. 129, it may be inferred that in Ptolemy's maps the rivers Subos, Salathos, and Chusarios, are repetitions of Subur, Sala, and Cusa, and the town Salathos of Sala. This seems incontrovertible; but there do not appear to be any other repetitions. The projection of Arsinarium, and its position with respect to the Canaries, indicate Cape Bojador. The three rivers that follow seem to be those of del Ouro, St. Cyprian, and some smaller stream; and it is probable that the White (by some called Black) mountains are the Chariot of the Gods, while the ancients did not pass the bold promontory of Cape Blanco, within which the sea makes a recess, as expressed by Ptolemy. Supposing Atlas Major to be near Cape Geer, where that great range really terminates, it will embrace about one third of the ancient knowledge (Ptolemy's map) which could not thus extend beyond Cape Blanco.

The ancient nautical observations of mountains, &c. were not restricted, as in modern times, to the mere coasts, but embraced lofty inland mountains, and other striking objects within view. The Sailing Directions for the coast of Africa, 1799, mention, p. 15, a remarkable peak to the south of Cape Bojador; and the prodigious roaring of the sea, produced by the shooting of the streams against each other, and which begins (ib. p. 16.) not far to the north

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On the eastern shores the knowledge of the ancients does not appear to have extended beyond the isle of Pemba, south lat. 5°, or the vicinity. But of the interior parts Ptolemy, who resided in Egypt, appears to have had more precise knowledge in the second century, than has since been attained in any age. One of the most striking defects in the map adapted to his work by Agathademon is, that sufficient spaces are not left for the wide forests and deserts. Hence in Germany, Persia, Arabia, and other instances it has already been shewn that distant positions are often crowded together. In the map of Africa the same deficiency is apparent, the proper space not being left for the great desert of Zaara. Hence the source of the Nigir, lat. 11°, is elevated to lat. 18°, and its course approaches the land of Dates. On the other hand the southern parts of Ptolemy's map are too much expanded, and filled with numerous names of small tribes, like La Cruz's map of South America. The most remarkable feature, in the description of the Egyptian geographer, is the river Gir, which he delineates as equal in length to the Nigir; but running from east to west, till it be lost in the same lake, marsh, or desert, as the Nigir. This name of Gir or Ghir is certainly just and native, as there is another river of the same name in the country of Tafilet or Sijilmessa: and it is not a little surprising that Rennell, in his theory of these regions, should have totally omitted this striking feature. The Arabian geographer Edrisi, who wrote in the twelfth century, seems to indicate the Ghir only, when he speaks of the Nile of the Negroes, as running to the west, and lost in an inland sea, in which was the isle Ulil. The river Bahr Kulla of Browne appears to be the Gir of Ptolemy. A farther consideration of this curious subject is reserved for the last section of this brief description, in which the discoveries and conjectures concerning the central parts are recapitulatad. Suffice it here to observe, that as the ancient discovery of the river Nigir was made from the north, and not from the west, it cannot be considered as affecting the question concerning their knowledge of the western shores.

It is remarkable that Ptolemy's description of these shores extends little beyond the Fortunate or Canary islands, though it may have been expected, that as one of these islands was assumed as the first meridian, their position should have been pretty accurately determined. The ancient knowledge of the opposite shores might be best illustrated by views of the head lands and mountains, visible from the sea, so as to judge of the appearances which give name to the Chariot of the Gods, probably a mountain between two smaller like wheels, or some other fancied resemblance. Meanwhile it seems most likely that cape Bojador is the Arsinarium of Ptolemy; and that the White Mountains, or perhaps the Seven Hills, or Angel Hills, are the noted Chariot of the Gods. If the ancients had discovered Cape Verd, it is

of Cape Blanco, may well have terrified the ancients from any further progress. Nay the doubling of Cape Bojador itself was long an object of terror to the Portuguese. Upon the whole there seems reason to conclude, with some certainty, that Cape Blanco was the utmost limit of ancient knowledge in this quarter; but the face of the coast has been greatly changed, even in modern times, by the force of the currents, and the accumulation of sands.

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probable that the islands called by the same name could not have escaped their knowledge; yet no geographical inquirer has been led to infer that their geography extended so far; nor do the Arabs appear to have made any discoveries in this quarter. On the contrary, even the memory of the Fortunate Islands appears to have been lost, when the Normans of France, a people who inherited from their ancestors the Norwegians, a singular disposition for maritime enterprise, again discovered them in the fourteenth century; and in 1402 they were conquered by Bethencourt.* This achievement appears to have acted as the first impulse towards any efforts in that quarter. In 1412 John I, king of Portugal, resolving to retaliate the attacks of the Moors, fitted out a fleet to assail the coasts of Barbary: and a few vessels were dispatched to explore the southern part of that country, as an attack from behind, or in an unguarded quarter, might reasonably promise more decisive success. Cape Nun had before been the utmost limit of Portuguese adventure, which was now extended to Cape Bojador. Prince Henry, the fourth son of king John, being fortunately a lover of science, fitted out ships to prosecute the discovery; and in 1419 Madeira was disclosed,† and its fertility and exquisite climate soon invited a small colony.

Yet so slow was the progress of discovery in Africa, that Cape Bojador‡ was first passed in 1433:‖ but the impulse having become vigorous, the discoveries were now more rapid; and in the space of a few years all the coast from Cape Blanco to Cape Verd, with the river of Senegal, was unveiled by the Portuguese, assisted by Italian navigators. So important did these discoveries now appear, that pope Eugene IV, granted a bull of possession to the Portuguese, of all the countries which they should discover, from Cape Nun to India. The islands of Cape Verd were discovered in 1446;** and the Azores, which from their relative position strictly belong to Europe, were all known before 1449. Yet in 1462, when prince Henry died, not above 1500 miles of the coast of Africa had been visited: and the equator was not passed till 1471. But the discovery of the gulf of Guinea, which in the ancient ideas might have been expected to terminate the continent; and of the still further southern protraction of the African shore; were far from being inconsiderable achievements.

* Histoire de la premiere descouverte et conqueste des Canaries. Paris, 1630, 8vo.

† Bergeron, p. 36, says that Madeira had been already discovered by the English, 1344.

‡ This word in the Portuguese signifies a *doubling shore*: in the Spanish *bojar* is to compass or go around. Currents render this whole coast extremely dangerous; and the safest navigation is on the west of the Canaries. The ancients displayed no small courage in passing Cape Bojador, long an object of terror to the Portuguese.

‖ Robertson's America, i. 59. The commander was Gilianez. Barros, Dec. 1, fol. 10. Italian translation by Ulloa, Venice, 1562, 4to.

** Robertson, ib. Barros is not precise in dates; but says, fol. 32, that the isles of Cape Verd were discovered by Antonio di Nolle of Genoa. He is the Antoniottus Ligur of Cadamosta, who was present; and whose first voyage was thus 1445, the second 1446; not 1455 and 1456, as corruptly dated in the Italian edition, Vicenza, 1507, 4to.

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The protection of John II, king of Portugal, led to still further discoveries. Congo arose to notice in 1484; and the stars of another hemisphere began for the first time to appear to astonished Europeans. Hopes were soon entertained of a maritime passage to India; and an embassy was dispatched to Abyssinia to secure the friendship of the monarch, in case the circumnavigation should be completed. At length, in 1486, the conduct of a voyage for this purpose, the most arduous at that time attempted in modern history, was committed to Bartholomew Diaz, who discovered near a thousand miles of new country; and at length descried that grand promontory, the utmost southern limit of Africa. But such was the violence of the tempests, that Diaz found his fleet unfit to navigate unknown seas, where the chance of refitment was uncertain; and, after a voyage of sixteen months, this great navigator was constrained to return, having named the utmost promontory *Cabo Tormentoso*, or the Cape of Tempests; but king John, as a better omen, assigned the received appellation of the Cape of Good Hope.

Intelligence from Abyssinia having confirmed the possibility of a passage, and trade with India, another expedition was instituted, which was further stimulated by the grand discoveries of Colon in 1492; and the success of Vasco de Gama, who, on the 20th of November 1497, passed the Cape of Good Hope, and explored the eastern coasts of Africa as far as Melinda in Zanguebar, whence he passed to India and arrived at Calicut 22d. May 1498, is recorded as the most distinguished period in African geography.

But that of the interior was destined to remain in obscurity, though early in the sixteenth century, Leo gave an ample description of the northern parts; and Alvarez who visited Abyssynia in 1520, published a minute account of that country;* which was further illustrated by those of Lobo and Tellez. The Portuguese established several factories and settlements in the west, in order to secure the trade in gold and ivory: and the additional title of king of Guinea had been assumed by the Portuguese. The accounts of the missionaries gradually enlarged the knowledge of African geography. Yet from peculiar circumstances, that knowledge continues extremely limited: the vast sandy deserts; high mountains; impenetrable forests; the unintermitting wars of the petty tribes, more spirited and ferocious than those of America, and unawed by European troops or conquests; and particularly the antipathy of the African Mahometans, many of them expelled from Spain, and retaining hereditary rancour against the Franks;

* One of the best translations of Leo, is that in English by Pory, at the request of Hakluyt, with a map and additions prefixed, containing all the knowledge acquired at that time: London, 1600, folio. The work of Alvares was translated from Portuguese into Spanish. Antwerp, 1557, 12mo. pp. 414.

In 1588 Livio Sanuto published a geography of Africa in folio at Venice; and in 1670 Dapper gave another at Amsterdam, which was copied in Ogilby's folio, London, 1671. Marmol's noted work was written in Spanish, and the first volume appeared at Granada 1573, folio. But Leo remained the chief original authority. The Congo of Lopez was published at Rome 1591, 4to: and a Latin translation 1598. The Decads of Barros began to appear 1560.

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have presented obstacles almost unconquerable. Recently Browne has disclosed the small kingdom of Fur or Darfur, and some circumjacent territories; and particularly the river of Bahr Kulla, which seems, as already mentioned, to be the Gir of Ptolemy. The travels of Park establish with certainty that the Nigir flows to the east, as long before delineated in the maps of D'Anville, Gendron, and others; and shew that its western sources are nearer the shore than had been imagined. The endeavours of the African Society at London, to promote the Geography of this continent deserves the highest applause, and their publications are valuable records of the science. It is to be hoped that Mr. Hornemann, who has the advantage of profiting by the advice and even disappointments of his predecessors, and seems to have in consequence adopted the necessary concealment and precautions, will at least succeed in detecting the termination of the Gir and Nigir, and in visiting the neighbouring cities, particularly Tombuctoo; for those mentioned by Edrisi may be long ago in ruins.

Religion. The ruling religion of this continent is the Mahometan, which has unfortunately penetrated further in the interior than was at first conceived; and, as already mentioned, has presented a great obstacle to such travellers as, being unaware of this circumstance, have neglected the disguise and simulation indispensable amidst such a fanatic and intolerant race.

Climate. The climate which in the north is intensely hot, is rather more moderate in the southern extremity, the antarctic cold being more powerful than that of the other pole. In the centre it would appear that there is a prodigious ridge of mountains, extending from those of Kong in the west to those of Kumri or of the moon, and those of Abyssinia in the east; the whole range being about north latitude 10°. And from this another chain seems to extend, about longitude 30°. east from Greenwich, in a southern direction. These ranges of mountains may probably be found to present a climate not expected in the torrid zone, and as adverse to the ancient belief, as that of South America, in which the chief features are the Maranon, and excess of moisture: and mountains clothed with perpetual snow.

Inland Seas. In Africa the want of inland seas is not supplied, as in South America, by large navigable rivers; and the singular deficiency of both may be regarded as a radical cause of the striking want of civilization, and slow progress of African geography. For inland seas, or navigable rivers, would have naturally invited commercial intercourse, and foreign settlements, on a far larger scale than the small factories near the coast; and the more southern parts might thus have rivalled the ancient fame of those on the Mediterranean and the Red Sea. But these grand inlets are rather boundaries of Africa; and there are no navigable waters which can diffuse commerce and industry from the shore to the centre.

Lakes. It is probable that considerable lakes may be discovered near the interior ranges of mountains; at present that of Maravi, south latitude 10°, is alone of such magnitude as to require notice in a general description; and even of this there is no certain nor precise knowledge.

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Rivers. The chief river hitherto discovered is the Nile, which rises in the Gebel el Kumr, or mountains of the moon, in a district called Donga, north latitude 8°. It was first known by the name of Bahr el Abiad, or the White River; and about latitude 16° is joined by the Bahr el Azrek, or the Blue River; the former tinged, the latter clear; circumstances which occur in the Maranon, and the Missouri, in which the chief stream is muddy. The Bahr el Azrek, or Blue River, was mistaken for the real Nile by the Portuguese writers, Alvarez, Tellez, &c. probably misled by the vain glory of the Abyssinians; though it was well known to the ancients as quite a distinct river, the Astapus flowing into the Nile from the Coloe Palus, now the lake of Dembea.* The comparative course of the Nile may be estimated at about two thousand British miles, thus nearly rivalling the longest Asiatic rivers: and it is at any rate only supposed to be exceeded by the Ob, Kian Ku, and Hoan Ho; as it is by the Maranon, and probably by the Missouri. The Nile forms some considerable cataracts, the chief being that of Geanadil in Nubia, before it gain the level of Egypt, after passing some rapids to the south of Syene. Its other features are intimately connected with the account of Egypt. The other chief rivers are the Nigir, and the Gir, already mentioned, the course of each being probably about 1000 British miles. That of Senegal is also considerable. In the southern parts the Zahiror Barbela of Congo, and the Zambezi of Mocaranga, are the most considerable yet known. It is not however wholly improbable that there may be some great rivers, descending from the central ridges of mountains, though their estuaries be so impeded by sand-banks, or divided by deltas, as to have escaped the notice of mariners.

Mountains. The mountains of Atlas attracted the particular observation of the ancients, who fabled that they supported the firmament, and derived from them the celebrated appellations of the Atlantic ocean and the Atlantic islands. When D'Anville supposes that the greater Atlas of Ptolemy is Cape Bojador, he evinces that he himself erred by extending the ancient knowledge too far to the south. Views of the head lands and mountains visible from the sea would

* Mr. Bruce's vanity led him to adopt the same mistake; and it is said that after conversing with D'Anville at Paris, who shewed him the gross ignorance of his pretensions, our traveller, who has great merit in other respects, wisely resolved to strike out the White river from his map, though he acknowledges in his work, that it is the largest stream! Gosselin, Recherches, ii, 120. pronounces Bruce the most credulous and enthusiastic of mankind; but, with greater justice, adds, that he has only repeated the discoveries which the Jesuits had made a century and a half before. Yet Gosselin's Ophir, which he finds in the obscure village of Doffir in Yemen, is a most ridiculous position. He forgets that the Phenicians, who directed the fleets of Solomon, had probably explored Britain before that period. It seems highly probable that Ophir was on the eastern coast of Africa; and perhaps Ophir was the original Phenician term for that continent. Equally ridiculous is Gosselin's idea, ii. 67, that *Sera*, the capital of the Seres, was Serinagar on the Ganges!

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again be requisite for this discussion; but in no map is the Atlas represented as extending so far to the south; and the greater Atlas would rather seem to be Cape Geer, where the chain probably terminates, or thence extends in the same direction, as not unusual, till it constitute the isles called the Canaries. Ptolemy's delineation of the Atlas is singularly broken and indistinct. In some modern accounts this ridge is considered as dividing the kingdom of Algier from Zeb and Bilidulgerid, that is, the direction is south-west and north-east, which also seems confirmed by Dr. Shaw, though he acknowledge considerable difficulties.* So far as the materials will admit, the Atlas may be considered as extending from Cape Geer in a north-east direction, and giving source to many rivers flowing north and south, till it expire in the kingdom of Tunis. This main ridge may perhaps, in some places, present a double chain, and in others diverge in branches. From the accounts of some French mineralogists, who have visited the western extremity, the structure is granitic and primitive.

Others. Further to the east the ranges of mountains or rather hills, in what is called the country of Dates, cannot be considered as portions of the Atlantic range. Along the western shores of the Arabian Gulf extends a celebrated ridge of red granite, which supplied the famous obelisks of Egypt; and of which one mountain was styled that of Emeralds, from the quarries of that gem: in the same vicinity were the quarries of the celebrated marble called *Verde Antico*, recently observed by Bruce and Browne. The high mountains of Abyssinia seem to branch from the great central chain already mentioned, or rather from its junction with that on the west of the Red Sea; but the natural history remains unknown. The conjectural ridge proceeding south is supposed to terminate about latitude 25°, as the high mountains on the north of the European colony of the Cape pass east

* Travels, 1738, folio, p. 18, &c.

Strabo, lib. 17. mentions the Atlas as called *Dyris* by the natives, and only describes it as being beyond the pillars of Hercules, on turning to the left or south, the ancients indeed seeming to regard it as one high mountain, not as a ridge. Mela, lib. i. cap. 4, mentions the Atlantae as the furthest people on the west. Pliny, as usual, is the most learned, lib. v. cap. 1. He also describes Atlas as a detached mountain, rising from the sands to a great height, on the shores of the ocean to which it gave its name, yet towards the end of the chapter he describes it as a range passed by Suetonius Paulinus on his progress to the Nigir. It is to be regretted that Pliny's geography, perhaps the most interesting of all antiquity, has not been translated and illustrated, as it has been in a singular manner neglected by D'Anville, and most other inquirers into ancient geography, who seem only to recur to geographers strictly so called.

From Mr. Lempriere's journey in Morocco the range of the Atlas seems clearly ascertained, the town of Santa Cruz standing near its furthest extremity, while Tarudant, to which he passed through an open plain, is, by his account, on the south of the Atlas. Thence Cape Geer is the clear termination or great Atlas of Ptolemy, while the smaller Atlas is a branch extending towards Saffi, Lempriere, p. 75, or Cape Cantin: and another branch now called the Lesser Atlas reaches to Tangier. The Arabian geographers extend the Atlas (Daran) through Tripoli, but this opinion is contradicted by modern observation, and even by the maps of Ptolemy.

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and west, and the Orange river rising from their northern base is supposed to follow a north-west and west direction. The mountains of the Cape seem chiefly of blue schistus, siliceous sandstone, and granular quartz, interspersed with large masses of granite, which are often found hollow, as if they had contained some softer substance.

Deserts. But the most striking feature of Africa consists in the immense deserts, which pervade many parts of that continent, and may perhaps be found to comprise one half of its whole extent.

Zaara. Of these the chief is that called *Zaara*, or *the Desert*, by eminence, stretching from the shores of the Atlantic, with few interruptions, to the confines of Egypt, a space of more than forty-five degrees, or about 2500 geographical miles, by a breadth of twelve degrees, or 720 geographical miles. This prodigious expanse of red sand, and sandstone rock, presents, as it were, the ruins of a continent; and perhaps gave rise to the fable of Atlantis, a region at first conceived to be seated in the sands on the west of Egypt; and afterwards, like other fables, passing gradually further before the light of discovery. This empire of sand defies every exertion of human power or industry; but it is interspersed with various islands of different sizes, of which Fezzan is the chief which has yet been explored. A recent traveller in Morocco says, that caravans frequently pass from Tafilet to Tombut or Tombuctoo, by the country of the Mohafres and Thouat*. "The city of Thouat is in the interior parts of the country, about thirty days journey from Tafilet. From Thouat the caravans proceed directly to Tombut. There is much greater danger in passing the two deserts between Tafilet and Thouat, than between the latter place and Tombut." Thouat seems to be the Toudeny of some recent maps; and the vast desert instead of being more justly considered in the aggregate, is divided into portions of distinct appellations, as the travellers happen to meet with islands, saline pools, or other circumstances.

In the southern parts of Africa, towards the European settlements, there are also deserts of great extent; but it seems probable that the central ridges of mountains, already indicated, preserve vegetation where they extend; and it is understood that the Portuguese have been prevented from passing from Congo to Zanguebar by ranges of mountains full of the most ferocious animals, and impeded by that thick thorny underwood which is peculiar to African forests. Yet there is probably, as in Asia, a wide desert table-land between the east and west ranges, pervaded by the Giagas or Jagas, who seem to be the Tatars of southern Africa; and who are said sometimes to have roamed from Mozambic to the vicinity of the Cape of Good Hope.

Arrangement. In arranging the following brief description of Africa, the first account shall be that of Abyssinia, the chief native power, so far as hitherto discovered. Thence by Egypt, in a geographical progression, the route shall embrace the Mahometan states on the north, the western coast, and the Cape of Good Hope. The progress shall then be continued along the eastern shores: nor must the

* Lempriere, 343, 344.

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noble island of Madagascar be forgotten. The smaller islands which must be arranged with Africa are, Bourbon, Mauritius, &c. nor can Kerguelen's Land be properly allotted to any other division of the globe. The geographical voyage then bends to the north-west by St. Helena, the islands of Cape Verd, the Canaries and Madeira. The whole description shall be closed with a summary of the discoveries, and conjectures, concerning the central parts of this great continent.

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Pittston 12

ABYSSINIA.

EXTENT.—ORIGINAL POPULATION.—PROGRESSIVE GEOGRAPHY.—RELIGION.—GOVERNMENT.—POPULATION.—ARMY.—REVENUES.—MANNERS AND CUSTOMS.—LANGUAGE.—CITIES.—MANUFACTURES AND COMMERCE.—CLIMATE AND SEASONS.—RIVERS.—LAKES.—MOUNTAINS.—BOTANY.—ZOOLOGY.—MINERALOGY.—NATURAL CURIOSITIES.

EXTENT. THIS kingdom, which exceeds in antiquity and stability, any of the African states, extends about eleven degrees in length, from north to south, that is, about 660 geographic or 770 British miles. The medial breadth is about eight degrees of longitude, in latitude ten degrees, or 572 geographic miles, about 550 British. On the east, the chief boundary is the Red Sea; and it is divided from the kingdom of Adel by an ideal line: on the south, mountains and deserts seem to part it from Gingiro and Alaba, while on the west and north, mountains and forests constitute the barriers towards Kordofan and Sennaar. It is divided into provinces, of which Tigri is remarkable for the transit of commerce to the Arabian gulf; Gojam for the sources of the Astapus or fabled Nile of the Abyssinians; and Dembea for a noted lake, and Gondar, the capital of the monarchy.

ORIGINAL POPULATION. It seems sufficiently established, that Abyssinia was peopled at a very early period, by a colony from the opposite shores of Arabia, and the people still retain Arabian features, though their complexions be darker than those of their progenitors: but they have neither the singular construction of the negro scull, nor other peculiarities of that race.* In the year 333 the Abyssinians were converted to Christianity, their general tenets being those of the Greek

* Volney has with sufficient precipitation pronounced, that the ancient Egyptians were negroes, though he had only to look at their descendants the Copts, at any of their ancient gems, or other representations, or even at the mummies themselves, to perceive his error. But Volney was labouring for the emancipation of the negroes; and that species of reasoning ignorance, which is too often called philosophy, is itself over-run with the most singular prejudices.

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church, received from the patriarch of Alexandria; but they still retain the African circumcision, a native and aboriginal rite wholly unconnected with religion. As the Arabs impute every thing marvellous to Solomon, so these their descendants, and in frequent habits of intercourse, have adopted the same ideas, which are strengthened by religious fable and tradition. Hence the Abyssinian kings claim a descent from that monarch, in the same mode of reasoning as the Arabs deduce the noble genealogy of their steeds from the stalls of Solomon. The queen of Sheba, or Saba, in Arabia Felix, has also been transferred to the other side of the gulf. Some credulous travellers have fondly adopted these idle tales; though they allow that the Abyssinian annals are dubious, broken and obscure; and the natives had not even the use of letters till they were converted to christianity. From more certain sources it may be traced that the Axumites or Abyssinians were considerably civilized in the sixth century, and carried on some trade with Ceylon*. In the same century the Neguz, or king of Abyssinia conquered the Arabian monarchy of the Homorites in Yemen; and a Roman ambassador appeared in the royal city of Axumé, which existed in the time of Alvarez; but the territory could not be very extensive, as there were only seven bishops subject to the patriarch of Alexandria.

Progressive Geography. The progressive geography of this country may be traced with tolerable accuracy, from the time of Ptolemy, who describes its chief features, the two large rivers called Astrapus and Astraboras, now the Bahr el Azrek and the Tacuzzi or Atbara, and the lake Coloe or Dembea, with the royal city of Axume, now a village called Axum. The Arabian geographers supply the interval between ancient and modern knowledge.

Religion. The religion, as already mentioned, is the christian, with some peculiar forms and practices, too minute to be here detailed.

Government. The government is absolute and hereditary, but with a kind of election in the royal family: and the king is saluted with prostration. A striking and romantic singularity, was, that the princes were educated on a lofty and solitary mountain, a practice long since abandoned.

Population. Concerning the population of this country there seems no authentic evidence. Alvarez pronounces it one of the most populous regions in the world; but this seems one of the usual Spanish and Portuguese exaggerations.

Army. By Bruce's account it is extremely difficult to raise the royal army above thirty thousand; yet in so barbarous a state it it might be concluded that every tenth person joins the army. But so thin a population is incredible, and it seems probable it may amount to two or three millions.

Revenues. The royal revenues consist of the rude products of the various provinces, the use of money being unknown, though gold be found in the sand of the rivers. One of the chief articles is cattle, which are numerous, and sold at a low price.

* Gibbon, vii. 342

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Manners and Customs. The natives are of a dark olive complexion; and the dress a light robe, bound with a sash, the head being covered with a kind of turban*. The houses are of a conic form, meanly built of clay, and covered with thatch; and even the churches are of a round form, encircled with a portico. Christianity seems to hold but a slight influence over the manners and morals, and the priests are little respected. Engaged in the constant suppression of insurrections, or in petty warfare with the surrounding states, particularly the Galas, who seem a tribe of the Jagas, the government of Abyssinia pays little attention to the progress of industry and civilization. After fifteen centuries of christianity, this country recals the image of the barbarous states of Europe in the seventh or eighth centuries. To some nations, particularly the negroes and savages of America, cruelty seems so familiar, and sympathy or compassion so utterly unknown, that the sufferings of another are not only unfelt, but viewed with an unaccountable kind of delight. Were it not for this unpleasant truth, the reports of some travellers would scarcely be credible, when they assure us that, at an Abyssinian banquet, the flesh is cut from the live oxen. Others however only affirm that the natives are fond of raw flesh, a taste not unknown to the people of Tibet, and other countries. Even religion sometimes bends before the influence of climate, and polygamy is not unknown among these christians; the kings in particular having frequently many wives and concubines. By a singular custom the wife is punished if the husband prove false. The only meal is commonly in the evening, and the abstinence of Lent is carefully preserved; nay, according to Alvarez, the clergy and monks only eat three times a week. The common beverages are mead and a kind of beer†. The negus, or king, for the title of emperor is ridiculous, is considered as the sole proprietor of the land, while private property is restricted to moveable goods.

Language. The language is regarded as an ancient offspring of the Arabic, and is divided into various dialects, among which the chief are the Tigrin or that of the province of Tigri, and the Amharic. The Galanic is also widely diffused, the Galas being a numerous adjacent people, who frequently disturb the public tranquillity. The Abyssinian language is illustrated by the labours of Ludolf, and several missionaries; and is probably nearly allied to the Coptic, the Egyptians passing from the north of ancient Arabia, and the Abyssinians from the south.

Cities. The chief city in modern times is Gondar, situated upon a hill. According to Bruce it contains 10,000 families, that is about 50,000 souls; but in the time of Alvarez none of the cities were supposed to exceed fifteen hundred houses. The palace, or rather house of the negus, is at the west end, flanked with square towers, from the summit of which was a view of the southern country, as far as the lake of Tzana or Dembea. Axum, the ancient capital, is

* Poncet in Lockman, i. 230, &c. From a just enmity against the sanguinary and fanatical Portuguese missionaries, they detest the resemblance of a white complexion, and even shew an aversion to white grapes. Ib. 241.

† Alvarez, fol. 200. Lobo, p. 54.

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still known by extensive ruins, among which are many obelisks of granite, but without hieroglyphics. The other towns are few and unimportant. On the rock of Geshen, in the province of Amhara, were formerly confined the Abyssinian princes: and Abyssinia in general is remarkable for detached precipitous rocks, appearing at a distance like castles and towns, a feature also usual in New Granada, and other north-eastern parts of South America. The rock of Ambazel, in the same province, has also been dedicated to the same political purpose, both being near a small river, which flows into the Bahr el Azrek.

Manufactures and Commerce. The manufactures and commerce are of small consequence, the latter being chiefly confined to Masua on the Red Sea. The earthen ware is decent; but though Cosmo de Medici, among other artisans, sent manufactures of glass to the neguz, the Abyssinians still seem strangers to this, and many other common fabrics.

Climate and Seasons. The climate is attempered by the mountainous nature of the country. From April to September there are heavy rains; and in the dry season of the six succeeding months, the nights are cold. Alvarez has long ago remarked that the rise of the Nile in Egypt is occasioned by the violent rains, which, during the summer, deluge the southern regions; and he might perhaps have added the melting of the snows in the African alps, which give source to the real Nile the Bahr el Abiad; for as the Atlas is covered with perpetual snow, which also crowns the Andes under the equator, it is probable that the central ridge of Africa presents the same features, and that an ancient geographer might have been frozen to death in his torrid zone. Abyssinia is one of the most mountainous and precipitous countries in the world; but in a few vales the soil is black and fertile.

Rivers. The chief river is the Bahr el Azrek, or Abyssinian Nile, which has a spiral origin like the Orinoco. The sources were, in the seventeenth century, accurately described by Payz, a Portuguese missionary, whose account was published by Kircher and Isaac Vossius, and has in our times been very minutely copied by Bruce, as Hartman has explained by printing the two accounts in parallel columns. The chief spring of the Bahr el Azrek is in a small hillock, situated in a marsh. The sources of the real Nile or Bahr el Abiad, in the alps of Kumri, remain to be explored. Receiving no auxiliary streams on its long progress through Egypt, the Nile is singularly narrow and shallow, when compared with other rivers of far shorter course. The Bahr el Azrek is styled by the Abyssinians Abawi, a name of uncertain origin; and is followed by the Tacuz or Tacuzzi the Astaboras of the ancients, as the Abawi is the Astapus*. Another considerable stream is the Maleg, which joins the Abawi after a parallel course on the west: this river Bruce has vainly endeavoured to confound with the Bahr el Abiad, or White River, which, as he might have learned from the map of D'Anville 1749, is 300 miles to

* The Abawi presents a remarkable cataract at a place called Alata, not far from its egress out of the lake of Tzana. The grand cataract of the Nile is in Nubia, latitude twenty-two degrees.

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the west of Maleg; and receives the Abawi at about the same distance from its junction with the former river. Several tributary streams join the Abawi and the Tacuz Two other rivers, the Hanazo and the Hawash, flow in an opposite direction, towards the entrance of the Red Sea, but the first is said to be lost in the sands of Adel.

Lakes. The chief lake is that of Tzana, also called Dembea, from a circumjacent province. This lake is pervaded by the Nile in its circular progress, as the lake of Parima by the Orinoco, being about sixty British miles in length by half that breadth, but the extent differs greatly in the dry and wet seasons. Among other islands there is one in the midst called Tzana, which is said to have given name to the lake. In the southern extremity of the kingdom is the lake of Zawaja, a chief source of the Hawash; and among many smaller expanses of water may be named the lake of Haik, near the royal rocks of Geshen and Ambazel.

Mountains. The mountains of Abyssinia seem irregularly grouped, being at the junction of that chain which borders the western shores of the Red Sea, and of that far superior ridge which pervades central Africa from east to west in a North-west to south-east direction, giving source to the Nigir and the river of Senegal at one extremity, and at the other to the Gir and Nile. Hence on the east side of Abyssinia the ridges probably pass north and south, and in the southern part west and east. As in other high ranges of mountains there are three ranks, the chief elevations being in the middle. On the east of the kingdom are the heights of Taranta, and towards the centre the Lamalmon, while in the south is the Ganza. Tellez idly asserts that the Abyssinian mountains are higher than the Alps or Pyrenees; he adds that the loftiest are those of Amhara and Samena, that is towards the centre of the kingdom, whence rivers flow in all directions. The precipices are tremendous and truly alpine. Abyssinia presents a rich field of natural history.

Botany. The few scanty fragments of Abyssinian botany contained in the works of Ludolph, Lobo, and Bruce, are unfortunately our only materials for the flora of eastern Africa; nor can these be wholly depended upon, as two of the above authors wrote before the existence of scientific botany, and the third, besides his ignorance on this subject, seems too much disposed to aggrandise his brief catalogue by representing common plants as rare and even new species.

The sycamore fig, the erythryna corallodendron, the tamarind, the date, the coffee, a large tree used in boat-building, called by Bruce rack, and two species of mimosa or acacia, though probably not the principal trees, are almost the only ones that have hitherto been described. The arborescent euphorbiæ are found on some of the dry mountains. A shrub called, in the language of the country, wooginoos, (the brucea antidysenterica of Bruce and Gmelin,) is celebrated by the British traveller for its medicinal virtues in the disease of which it bears the name, and the cusso or banksia of Bruce, which seems to be a species of rhus, is mentioned by the same author as a powerful anthelmintic. A large esculent herbaceous plant analogous to the banana, called by Bruce ensete, is largely cultivated by the natives as a substitute for bread. The cyperus papyrus is found here in shallow plashes

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as in Egypt; and the trees that yield the balsam of Gilead, and the myrrh, are represented by the above-mentioned traveller as natives of Abyssinia.

Zoology. The horses are small but spirited, as usual in alpine countries. Cattle and buffaloes are numerous. Among wild animals are the elephant, rhinoceros, lion, panther; and it is said the giraff or camelopardalis. The hyena is also frequent, and singularly bold and ferocious, so as even to haunt the streets of the capital in the night. The extirpation of these animals may be impossible in so mountainous a country, but the circumstance indicates a miserable defect of policy. There are also wild boars, gazels or antelopes, and numerous tribes of monkies, among which is the guereza delineated by Ludolf. The hippopotamus and crocodile swarm in the lakes and rivers. Equally numerous are the kinds of birds, among which is the golden eagle of great size, but water fowl are rare. The most remarkable insect is a large fly, from whose sting even the lion flies with trepidation.

Mineralogy. The mineralogy of this alpine country must be interesting, but it is neglected by the ignorant natives. Gold is found in the sand of the rivers, and in one or two provinces is observed on digging up trees. There are some slight mines in the provinces of Narea and Damut. Fossil salt is found on the confines of Tigri. It is said that there are no gems, and that even the royal diadem is decorated with imitations: some assert that the Abyssinians neglect to search for gold or gems, lest the Turks should be instigated by the reported wealth to invade the country.

Natural Curiosities. The chief natural curiosities are the alpine scenes, the precipitous detached rocks, the cataract of Alata, and the river Mareb in the north-east, which is said completely to sink under ground.

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EGYPT.

EXTENT.—ORIGINAL POPULATION.—PROGRESSIVE GEOGRAPHY.—RELIGION.—GOVERNMENT.—POPULATION.—REVENUES.—MANNERS AND CUSTOMS.—LANGUAGE.—CITIES.—CLIMATE.—FACE OF THE COUNTRY.—RIVERS.—LAKES.—MOUNTAINS.—BOTANY.—ZOOLOGY.—MINERALOGY.

EXTENT. THIS country celebrated from the earliest ages of antiquity, and recently a distinguished scene of British valour, both by sea and land, is about 500 miles in length from north to south, and, including the greater and lesser Oasis, about half that breadth. But this appearance is merely nominal; Egypt being in fact a narrow vale on both sides of the river Nile, bounded by parallel ridges of mountains or hills.

ORIGINAL POPULATION. It seems to have been originally peopled from the northern parts of Arabia, or from Syria: the Egyptians and Abyssinians having been in all ages wholly distinct from the native nations of Africa. A late intelligent traveller remarks* that the Copts, or original inhabitants have no resemblance of the negro features or form. The eyes are dark, and the hair often curled, but not in a greater degree than is occasionally seen among Europeans. "The nose is often aquiline, and though the lips be sometimes thick, by no means generally so, and on the whole a strong resemblance may be traced between the form of visage in the modern Copts, and that presented in the ancient mummies, paintings and statues. Their complexion, like that of the Arabs, is of a dusky brown; it is represented of the same colour in the paintings which I have seen in the tombs of Thebes." Volney had only to inspect a mummy, or a Copt, in order to confute his hypothesis that the Egyptians were negroes; but prejudice is worse than blindness; and the prejudices of ignorant philosophy are equal to those of any other fanaticism.

PROGRESSIVE GEOGRAPHY. The progressive geography and history of Egypt are familiar to most readers; and the chief antiqui-

* Browne, p. 71.

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ties have been so repeatedly described, that when no new light can be thrown, the repetition would be alike tedious and unnecessary. The chief scenes of antiquity are the pyramids, and the tombs near Thebes, once obstructed and recently disclosed; with many ruins of temples, and other remains of ancient cities. At Achmunein there are curious ancient paintings, the colours being remarkably fresh*.

Religion. The ruling religion in Egypt is the Mahometan; but there are many Christian Copts who have their priests and monasteries.

Government. The government is at present unsettled, but will probably be abandoned to a Turkish Pasha; the aristocracy of the Beys and Mamluks being, in every appearance, eradicated by the French invasion.

Population. Mr. Browne estimates the population of Egypt at two millions and a half; of whom the city of Cairo may contain 300,000†.

Revenues. The revenue under the Beys might perhaps be about 1,000,000 sterling.

Manners and Customs. A general similarity pervades the manners of Mahometan countries, as the Koran regulates most springs of human life; the fanaticism against the Franks or Europeans was extreme, but may perhaps be somewhat moderated by the recent terror of their arms. The Copts are an ingenious people, and have great skill in business; whence they are generally employed by the Mahometans as writers and accomptants. The Mamluks being extinct, the other chief class consists of Arabs or Mahometan descendants of these ancient conquerors. The heat of the climate enforces an abstemious diet; and the houses, even at Cairo, are mostly miserable dirty hovels. The common people are also disgustingly filthy in their persons: and the care which the women employ to cover their faces is truly ludicrous, as in general to disclose them would be the most effectual bar to temptation. But in the classes somewhat more at ease the Coptic women have interesting features, large black eyes; and though of short stature, have often elegant shapes.

Language. The Coptic language is now only known in manuscripts, the Arabic being universally used.

Cities. The chief city is Cairo, or in the oriental enunciation Kahira, which may indeed be regarded as the metropolis of Africa, as no city throughout this wide continent can perhaps boast a sixth part of its population. This celebrated metropolis is on the east side of the Nile, at some distance; but two suburbs connect it with the river. On the east is a ridge of that extensive chain, embanking the Nile as far as Upper Egypt. On the north a plain extends to the delta which it resembles in soil and productions. The population as already mentioned, is estimated at 300,000; but the streets are narrow in order to guard against the sun; and there is an interior wide canal styled the

* Dr. White in his Egyptiaca, 1801, 4to, inclines to think that the noted column ascribed to Pompey, ornamented a space opposite to the Serapium or temple of Serapis, in which was the great public library; and escaped ancient notice by its connection with that grand edifice.

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Chalige, the stench of which is occasionally intolerable, though the chief street pass along its shore. The principal mosk is ornamented with pillars of marble, and Persian carpets, and has a library of manuscripts, great property being attached to the foundation. There are many reservoirs for water, public baths, and bazars or markets, where each trade has its allotted quarter. The houses are mostly of sandstone from the mountain behind, and are sometimes three stories high with flat roofs. The harams, or apartments of the women, are expensively furnished, but those of the men neat and plain. Before the discovery of the Cape of Good Hope the commerce was immense; and Cairo is still the centre of that of eastern Africa, as Tripoli is of the western. From Yemen are imported coffee, drugs, odours, and some gems; muslin, cotton, spices from Hindostan: and the caravans from Sennar and Fur bring slaves, gold dust, ivory, horns of the rhinoceros, ostrich feathers, gums and drugs. From Tunis and Tripoli are brought oil, red caps, and fine flannel: from Syria, cotton, silk, sugar, tobacco: from Constantinople, white slaves, Circassians or Georgians, the males being the noted Mamluks, with all kinds of brass, copper, and iron manufactures. Numerous negro slaves pass from Cairo to the more northern Mahometan countries. Among the manufactures are sugar, sal ammoniac, glass lamps, salt-petre, gunpowder, red and yellow leather, and particularly linen made of the fine Egyptian flax. To the north-east of the city are gardens and villas of the great; but the mountain is of white calcareous sand-stone, and destitute of verdure. On Friday, a mosk without the walls is frequented by the ladies as a pilgrimage of pleasure. There are light boats, like Venetian gondolas, used on the increase of the Nile; and among the amusements are dancing girls, and rope dancers, the chief games being chess, and Polish draughts. On solemn occasions fire works are exhibited.

Next in consequence are Alexandria, Rosetta or Raschid, and Damiata. Upper Egypt no longer boasts of a Thebes; and even Girgi, formerly the capital of this part begins to decline.

Commerce. Egypt is no longer the centre of oriental trade, nor the granary of Rome, yet the delta still exports great quantities of rice; and Upper Egypt supplies some cargoes of wheat. Flax is sent to Syria, and coffee and black slaves to Constantinople. Other articles of commerce are already enumerated in the description of Cairo. Alexandria was the chief seat of European trade, which thence passed by Raschid to Cairo. Particular exports were saffranon and senna: and about eight hundred bales of European broad cloth were imported. The trade of Damiata is of small consequence.

Climate. The climate of Egypt is well known to be peculiar, rain being a most uncommon phenomenon. The heat is also extreme, particularly from March to November; while the cool season or a kind of spring extends through the other months*. Yet the chief malady seems to be a weakness of the eyes, and blindness is very common in Egypt. Some suppose that this proceeds from the extreme heat and want of rain, so that the air is continually impregnated with

* Volney, i. 67

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very fine dust; and the soil abounding in nitre, the effect is the more acrimonious. The habit of sleeping in the open air, upon the terraces, exposed to the nocturnal dews, may however be regarded as the chief cause; and when the disease appears it is increased by the splendor of the sun, reflected from the white houses, and the pale sand of the deserts. The plantation of trees and shrubs, wherever it can be effected; and the universal introduction of green paint, would in some measure obviate this calamity, which appears to have been unknown to the ancient inhabitants: but the chief precaution would seem to be an edict against sleeping in the open air; and the use of such covers as the Laplanders wear against the glare of the snow might also be salutary. The pestilence has been erroneously supposed to originate from Ethiopia, where it is quite unknown; and in Egypt it is supposed to be always imported from Constantinople. The extreme heat stops it here, as effectually as the cold in other countries.

Face of the country. The general face of the country varies in particular regions, but is otherwise rather flat and uniform. Alexandria is insulated in the desert, while the Delta presents a luxuriant vegetation, and inundated meadows. The constant repetition of the palm and the date tree becomes tedious; but around Raschid the orange groves present an agreeable variety. Of far the greater part of Egypt the aspect is that of a narrow fertile vale, pervaded by the Nile, and bounded on either side by barren rocks and mountains. The towns, and cultivation, are chiefly on the eastern bank; behind which are vast ranges of mountains extending to the Arabian gulf, abounding with marble and porphyry, but almost destitute of water, and only inhabited by Bedouins. Across these mountains is a solitary road to Cosseir on the Red sea. On the west, the hills lead to a vast sandy desert, where are the two Oases, a name applied to islands situated in sand. The appearance of Egypt, under the inundation of the Nile, has been described rather poetically than historically, the picture only applying to parts of the Delta; while in other districts there are some canals, but the lands are generally watered by machines. According to a late traveller "the soil in general is so rich as to require no manure. It is a pure black mould, free from stones, and of a very tenacious and unctuous nature. When left uncultivated I have observed fissures, arising from the extreme heat, of which a spear of six feet could not reach the bottom*." From Cairo to Assuan, or Syene, a distance of about 360 miles, the banks, except where rocks appear, present no native plant, but rise as it were in steps, as the Nile has in different ages worn its way, and are sown with various esculent vegetables. The agriculture is of the simplest kind, the chief article being wheat with barley for the horses; oats being scarcely known in Asia or Africa. In the Delta rice is the chief grain, with maize and lentils; nor are some kinds of clover unknown. The lands chiefly belong to the government or to the mosks. The tenants are not restricted to the soil; but are at liberty to move on the expiration of a kind of lease.

Rivers. The only river of Egypt is the Nile, already described in the general view of Africa. Its greatest breadth, even here, is

* Browne, p. 64.

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about one-third of a mile; and the depth about twelve feet; for receiving no streams in Egypt or the Nubian deserts, it bears little of the usual character of rivers that pervade so extensive a course. The water is muddy, when it overflows of a dirty red; and cloudy even in April and May. The river begins to rise about the 19th of June, the Abyssinian rains having begun in April; and it ceases in October. It abounds with fish, particularly kinds of salmon and eels. The hippopotamus is unknown in Egypt; and even the crocodile restricted to the south of Assiut.

Lakes. There are several extensive lakes in the northern parts of Egypt, the largest being that of Menzala which communicates with the sea by one or two outlets. Next is that of Berelos, followed by that of Elko. These stagnant waters at the mouths of the Nile seem unknown to Ptolemy, and to have been produced, or enlarged, by the sandy depositions of the river having raised the bed of the sea, so that the Delta is diminishing, instead of being increased as some recent theories affirm. The lake of Mareotis, on the south of Alexandria, has however become almost dry; though occasionally as would seem, moistened by inlets from the sea*. The lake called Kerun, in a curious district of Egypt forming an excrescence to the west, seems to be about thirty miles in length and six miles in breadth, and has no appearance of being artificial as some suppose, the Mœris of antiquity being probably the Bathen, a long deep canal to the south-east. The Natron lakes must not be forgotten, being so called from their production of that kali, which supplies the use of barilla. They are situated in the desert near a remarkable channel, supposed to have been anciently a branch of the Nile, and still called the Bahr Belame, or river without water: but it was probably an outlet of the lake of Kerun, in remote ages, before the deserts had become so extensive; for there seems little doubt that they increase, and it is probable that when Egypt boasted her early power, the mountains were clothed with vegetation, and the Nile a far superior stream.

Mountains. The mountains have been already described as ranging along the banks of the Nile, but chiefly between that river and the Red Sea. In Lower Egypt, and on the western side of the Nile, they seem to be chiefly of calcareous sand-stone, or what is called free-stone; some perhaps are of argillaceous and siliceous sand-stone. The pyramids are generally constructed of a soft calcareous free-stone, full of shells, like that used at Bath; and the rock on which they stand is of the same substance†. In Upper Egypt the mountains towards the Red Sea are porphyreous and granitic. On passing towards Cosseir the rugged and lofty rocks have a grand and terrific appearance, consisting chiefly of red granite, and porphyry red and green, the latter being the ophite or snake-stone of the ancients, by a far more proper appellation, as the word *porphyry* implies *red* or purple. Here is also found the celebrated *verde antico*, or green marble with white and dark

* Mr. Baldwin, Recollections, 1801, 12mo. p. 185. mentions the haze and vapour always floating over this exhaling lake: but p. 203 he says the lake of Mareotis is dry.

† Browne, 173.

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spots: it arises in the neighbourhood of serpentine, under a blue schistus. There are also red and other marbles. Near Syene, Pococke observed the quarries of red granite, whence the ancient obelisks were dug; their great length being hollowed out from the rock, in the form of steps, for the convenience of working, and easy carriage to the Nile.

Botany. The rich valley of the Nile has been for so many ages under the dominion of man, and can boast the proud succession of so many hundred harvests, that it is by no means easy to distinguish its native vegetables, from those which have been introduced at various periods for profit or pleasure, and have gradually naturalized themselves in the soil of Egypt. Wherever the annual inundations extend, a number of seeds, brought down by the torrent from Ethiopia and Abyssinia, must be deposited together with the fertilizing mud, which, vegetating regularly every year, are probably mistaken for truly indigenous plants. We shall therefore mention such of the Egyptian vegetables as are of most importance, either by their present use or ancient fame, without being very solicitous to examine whether they are real natives or naturalized strangers.

The Lotus and Papyrus have always been the appropriate decorations of the God of the Nile: the former of these is a species of nymphæa or water lily, which at the retreat of the inundation covers all the canals and shallow pools with its broad round leaves, among which are its cup-shaped blossoms of pure white, or cœrulean blue, reposing with inimitable grace on the surface of the water. The papyrus, sacred to literature, after having long vanished from the borders of the Nile, has at length been recognised in the cyperus papyrus of the Linnæan system. The arum colocasia of ancient fame is still cultivated in Egypt for its large esculent roots. The Egyptian sycomore (ficus sycomorus), probably introduced from the opposite shore of Arabia, is of peculiar value from its fruit, its depth of shade, and the vigour with which it grows, even on the sandy frontiers of the desert. The date palm, the pistachia, the oriental plane, and the bead tree, adorn the shore, and are cultivated in the vicinity of most of the towns. The cypress overshadows the burial grounds, and the caper-bush roots itself in the ruins of Egyptian, Greek, and Roman civilization. The senna, the mimosa nilotica, and the henné (lawsonia inermis), are also characteristic of Egypt; from the latter of these, the women prepare that yellow dye with which they tinge the nails of their fingers. All the most exquisite of the European fruits, such as the almond, the orange, pomegranate, fig, peach, and apricot, are cultivated here with great assiduity and success; the various kinds of melons and gourds grow to full perfection, and compose no unimportant portion of the food of the inhabitants, and mingled with these productions of the temperate regions are found the plantain, the sugar-cane, the cotton, and a few others, that have formerly been imported hither from the tropical climates.

Zoology. The animals of Egypt have been repeatedly described. A French naturalist seems recently to have demonstrated from the size of the bones, and other circumstances, that the noted ibis of the ancients was not a kind of stork, as commonly conceived,

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but a curlew. The bird has not been seen by modern travellers, having deserted the country, from the failure of some particular food, or other cause.

Mineralogy. The mineralogy of Egypt is not opulent, nor does it seem ever to have produced any of the metals. A mountain towards the Red Sea is styled that of emeralds; and even now the best emeralds are by the Persians called those of Said, or Upper Egypt: but the mines are no longer worked, and even the spot seems unknown*. Wad has published an account of Egyptian fossils, from ancient fragments in the museum of Cardinal Borgia at Veletri. They are of red granite; white granite with hornblende; grey felspar, and black hornblende†. The porphyry seems petrosilex with spots of felspar. There is also a little fragment, with hieroglyphics, of micaceous schistus, consisting of brownish black mica: other remains are of sand-stone, and sand-stone brescia, felspar, serpentine, lapis ollaris, white marble with veins of silver mica, swine-stone, what is called green basalt by the Italians, and jasper of various kinds; with topaz, or the chrysolite of the ancients, amethyst, rock crystal, calcedony, onyx, carnelian, heliotrope, obsidian, lazulite; but there seem to be none of emerald. Many are of basalt, or the Ethiopic stone of Herodotus and Strabo; Pliny adding that the native word means *iron*: the Egyptian is sometimes a grunsten, being black hornblende with veins of felspar; and particles of hornblende are visible in all these basalts. These notices become interesting, as the Egyptians were the first inventors of sculpture and architecture, and the original materials may justly excite curiosity. Besides the natron lakes, there are some mineral springs, and one of salt water near Cairo, which is supposed to have medical virtues. The whole country may be regarded as one natural curiosity.

* In the travels of Mr. Bruce there are several valuable articles of new and authentic information, which might have been presented to the public in a small volume or two. But, in a spirit of universal compilation, he has disgraced his work with innumerable gross errors. Dr. Vincent has observed, that he has even confounded the gulf of Persia with the Red Sea; and Gosselin has added, that he has confounded the Isle of Topazes (those of the ancients were yellow green, Pliny 37. 8.) with the mountain of emeralds. Hence his ideas concerning the emeralds of the ancients are beneath notice. The ancient emeralds were confessedly harder than those of Peru, but those from Ceylon are thought to be green sapphires, the hardness being 16, while the Peruvian emerald is 12 (diamond 20.) Pliny 37. 5. classes the emerald next to the pearl and diamond; and says they were seldom or never engraved, to avoid injuring their beauty: but the hardness of the Scythian above Bactria, as he explains, that is from the Imaus, and of the Egyptian, was such that they could not be cut. *Quepropter decreto hominum ilis parcitur, scalpi vetitis Quanquam Scythicorum Aegyptiorumque duritia tanta est, ut nequeant valnerari.* lib. 37. cap. 5. It further appears from his description that the idea concerning the superiority of the emeralds of Peru is wholly erroneous.

† This he says is the *syenites* of Werner, an absurd appellation, for Pliny tells us that the syenites was a red stone. It is in fact only an ancient name for red granite: but mineralogists are rarely versed in erudition. Ogilby in his Africa, 1671, fol. p. 97. gravely informs us, that the red (felspar) denotes fire; the crystaline (quartz) air; the bluish opake (quartz) water; and the black (mica) earth: so that in their obelisks of granite the Egyptians comprised symbols of the four elements.

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NUBIA.

BETWEEN Egypt and Abyssinia is an extensive tract, about 600 miles in length, and 500 in breadth, by the ancients styled Ethiopia, but more precisely by the Arabian geographers called Nubia. The isle of Meroe was formed by the junction of the Astaboras with the Nile; and it is not improbable that a southern channel, described by Ptolemy, may since have been dried up by the encroaching desert. The greatest part of Nubia is occupied by wide deserts on the east and west; but on the Nile are two states of some little consequence, Dongola on the north, and Sennaar on the south. Sennaar was in a state of servile war, the slaves having usurped the government, when Mr. Browne visited Darfur. Bruce describes his interview with the king, or rather chief, and his distinguished haram. In August and September the country around the city presents a pleasant verdure: but the people are deceitful and ferocious. The general dress is a long blue shirt; and the food mostly millet, though there be no want of cattle. Dongola does not merit a description: and the whole of Nubia is a miserable country, inhabited by a miserable people.*

* See the Travels of Poncet, a French physician, 1698, in Lockman's Travels of the Jesuits, I 192. Near Sennaar were forests of acacia, full of paroquets. The trees, p. 203, seem to be the cotton trees of America.

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MAHOMETAN STATES IN THE NORTH.

TRIPOLI.—TUNIS.—ALGIER.—MOROCCO.

CITY OF TRIPOLI. These are Tripoli, Tunis, Algier, and Morocco. Of these Tripoli is the most extensive, and the least known. The territories reach from the gulf of Cabes, the lesser Syrtis of antiquity, to the confines of Egypt, being chiefly the Africa proper, and Lybia of the ancients; but a great part is desert. Tripoli does not appear to be ancient, the nearest situations being the Sabatra and Oea of antiquity, while perhaps Tripoli is the port of Pisidon of Ptolemy.* The metropolis of Arabian Africa was Cairoan, about fifty miles to the south of Tunis, where resided the governors appointed by the califs of Damascus: and about the year 800 they assumed royal authority, and the dynasty of the Fatimites passed from Africa to Egypt. The Zeirites afterwards reigned at Cairoan. Tripoli was besieged by the Egyptians, A. D. 877, and A. D. 1050. In 1146 it was seized by the Normans from Sicily, who held this coast till 1159. The power of the Turks is recent, only dating from 1514, when Barbarossa seized Algier; but it has continued more peculiarly at Tripoli,† where the Bey was considered as immediately subject to the Porte, a Turkish pasha superintending his conduct; and the combined taxations have effectually ruined the country. Famine is also no unusual circumstance; and the depredations of the Arabs form an additional calamity. The town of Tripoli is in a low situation, but to the south are plantations of date trees and verdant hills, which relieve the sameness of the scene.‡ It is in a state of rapid decay, scarcely four miles in circum-

* It was built after the age of that geographer, but is mentioned as the birth-place of the emperor Severus. The name according to D'Anville was originally that of the province, as containing three cities. When the Arabs entered Africa in the seventh century they encountered considerable resistance at Tripoli. See Gibbon, ix. 450.

† The emperor Charles V. took Tripoli, and resigned it to the knights of Malta, who soon lost this possession, but their proximity has stifled the piracy of the Tripolitans. In 1686 this city was humbled by the bombardment of a French fleet, and sent an embassy of submission to Louis XIV.

‡ Lucas in the Proceedings of the African Society, 1790, 4to. p. 48.

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ference, and thinly peopled; the ancient castle, though still the residence of the reigning family, being in a ruinous condition. At present the Bey seems to be honoured or disgraced with the title and functions of Pasha: while the prince's eldest son has the title of Bey. Even the tributary Arabs are often in a state of insurrection; and the month of December, when the grass begins to present sufficient forage, is a common season of warfare. There are olive and date trees, white thorn, and Spanish broom; but the fields of grain are few and scanty. Towards Mesurata the vegetation is more luxuriant; but of the ancient Cyrene, an interesting spot, there is no recent account.

Tunis. Next on the west is Tunis, the central region of northern Africa, the western part of the proper Africa of antiquity, and formerly the chief seat of Carthaginian power. In the middle ages Tripoli was subject to Tunis, which was seized by Barbarossa in 1533. Of this kingdom, as it is called, Dr. Shaw has given a good description, having travelled through the greater part of it; and it is to be regretted that he did not visit Tripoli, still an obscure region in geography. In the summer the Bey of Tunis resides in the northern part, and in winter retires to the south, where there is a lake of considerable extent, the Palus Tritonis of antiquity. The chief river is the Mejerda, the Bagrada of classical repute. The chain of Atlas seems here to terminate, in cape Bon, being called the mountains of Megala, Uzelett, &c. but our author's chief pursuit being antiquities, the natural objects are treated with less care. Among the mineral productions he has observed alabaster, crystal, boles, plumbago, iron, lead. The cattle are small and slender, and the horses have degenerated. The sheep of Zaara are as tall as fallow deer. There are lions, panthers, hyenas, jaccals, and other ferocious animals. The manufactures are velvets, silks, linen, and red caps worn by the common people. In general the Tunisians are renowned as the most polite and civilized among the Mahometans of Africa, a character for which they are probably indebted to the situation of their country, for many ages the seat of the chief African powers. The ruins of Carthage, not far to the north-east of Tunis, have been accurately illustrated by Dr. Shaw.* The town of Tunis is about three miles in circumference, containing about ten thousand houses, or perhaps 50,000 souls. The chief exports seem to be woolen stuffs, red caps, gold-dust, lead, oil, Morocco leather: and the commerce with France was considerable.

Algier. Algier may be regarded as the last Mahometan state on the Mediterranean, for Morocco is chiefly extended along the Atlantic. In the thirteenth century Africa was first divided into those petty royalties, which still subsist with few variations. In 1514 Barbarossa seized Algier, which afterwards became a noted seat of pirates; and one of the Deys candidly declared that the country was a nest of robbers, and he was their chief. This city is supposed by Shaw to be the ancient Iconium, and is not above a mile and a half in circuit, while the inhabitants are exaggerated to more than a hundred thou-

* This city was founded about 1250 or 1300 years before the birth of Christ, as appears from Herodotus and the Parian Chronicle.

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sand:* but probably half that number would be nearer the truth. It is ludicrous to behold this power exacting tribute from the maritime states of christendom, while two ships of war maintained at the general expense, might block up the port, and extinguish the claims and the piracy. The antiquities of this kingdom have been accurately examined by Dr. Shaw, whose work is however more full of erudition, than of solid and interesting knowledge. The chief river is the Shellif, rising from the northern side of the Atlas, as the Wal Jedi from the southern, and afterwards bending to the west, being the Chinala of antiquity, while the latter is the Zabus. The kingdom of Algier chiefly comprises the Numidia and part of the Mauretania of the ancients, being bounded on the south by Getulia, and the chains of the Atlas, called Lowat and Ammer; which are however by Shaw's account of small elevation, and the grand ridges of the Atlas are towards the west, in the kingdom of Morocco.† The mountain of Jurjura is the highest in Barbary, being about eight leagues in length, in a north-east and south-west direction, full of rocks and precipices, but only covered with snow during the winter. This mountain is about sixty British miles to the south-east of Algier, and perhaps forms a part of the real Atlantic chain, which in this direction will terminate more to the west than above supposed; but it at any rate expires in gentle elevations, though the sea coast from the river Booberik to near Bona be mountainous and rocky. The productions are in general the same with those of Tunis. There are many salt rivers and springs, and there is a mountain of salt near the lake, called Marks:‡ there are likewise several mineral springs; and earthquakes are not unknown.

Morocco. Of the empire, or rather kingdom, of Morocco, an interesting account has lately been published by an English traveller, who from his medical character, had access even to the harams of the king, and one of the princes. This nominal empire consists indeed of several small kingdoms, as the old English monarchy was composed of the seven kingdoms of the heptarchy; but the style of emperor seems to have arisen in the fourteenth century, when the sultan of Morocco was for a short time sovereign of all the northern states of Africa. The proper style is that of sharif, or sherif, derived from a supposed descendent of Mahomet, who seized the sceptre about the year 1500. The kingdom of Fez has been united to Morocco, since it first became an independent sovereignty in the thirteenth century; while that of Tremesin was joined to the deydom of Algier. The sovereigns of Morocco being of the house of Merini, they were styled Al Merinis, and corruptly by the Spanish, and other authors, kings of Balmerin,

* Shaw, p. 68.

† Between cape Spartel and Arzilla, the inland mountains are observed from the sea, covered with snow even in May. Sail. Dir. p. 1.

‡ What the Moors call *Sbatt* or *Shatt* is a sandy plain, but sometimes overflowed, and which receives five small rivers. Shaw, 114. It is to be regretted that this author was so zealous an antiquary, whence his work is chiefly valuable for the illustration of ancient geography. The petrifying spring, ib. 252. led the fabling Arabs to imagine cities and their inhabitants turned into stone.

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being latterly the most powerful of the African princes. In the hands of an industrious people the kingdom of Morocco, or ancient Mauritania, might still be of considerable importance; but from ignorance and want of policy, the western harbours are, by Mr. Lempriere's report, blocked up with sand, so that Morocco may be effaced from the list of maritime powers or pirates. There are heaths of great extent; and the ridge of Atlas here displays its lofty summits and most extensive wildness; but many districts are fertile, particularly that of Tafilet on the south-east side of the Atlantic ridge.* In the summer months the heat is tempered by breezes from the Atlas, always clothed with snow. The Moors of the towns are somewhat civilized, particularly the mercantile class, and the wandering Arabs hospitable, but the Brebes or Brebers, who gave name to Barbary, are a fierce and obstinate race of the ancient natives; and, secure in the mountainous recesses, defy the government, being chiefly ruled by elective sheiks. The universal food is *cosceau*, consisting of bits of paste about the size of rice crumbled into an earthen colander, and cooked by the steam of boiled meat and vegetables, which are all served up together in an earthen dish, with butter and spices. This stew in which nothing is lost, even the steam being received by the paste, is the favourite meal of the peasant and the monarch. The domestic animals are much the same as those of Europe, except the camel; and dromedaries of great swiftness are procured from Guinea. The oxen and sheep are small but well flavoured: fowls and pigeons plentiful, but ducks rare, and geese and turkies unknown. There is plenty of game; and storks are common, being free from molestation. In the ridge of Atlas there are mines of iron, neglected by the unskilful Moors; but copper is wrought near Tarudant. The Portuguese formerly held several places on the coast, as Santa Cruz in the south, and Tangier in the north, while the Spaniards still retain Ceuta. The chief Mahometan port is Tetuan, which is rather an open road; but the town is in a picturesque situation, and the people particularly friendly to the English. The city of Morocco is situated in a fertile plain, variegated with clumps of palm trees and shrubs, and watered by several lucid streams from the Atlas:† the extent is considerable, surrounded by very strong walls of *tabby*, a mixture of stone and mortar which becomes as hard as rock. The chief buildings are the royal palace and the mosks; and there is a considerable *jewry* or quarter inhabited by Jews. The palace consists of detached pavilions, as common in the east; and even the mosks are squares with porticoes, like that of Mecca, the climate not requiring a covered edifice like our churches, or the Turkish mosks, often origin-

* It terminates at Santa Cruz, by the Arabs called Aguadir. Chenier, i. 46. Lempriere, 112. and by the French St.Croix de Barbarie. Mogador is by the Arabs called Souera. Saugnier, p.53. When the sherifs about A.D. 1500 seized the sceptre, many fugitive Portuguese retreated to the great desert where their descendents still exist, ib. p. 69, &c. The character of the Moors by Brisson, ib. 474, &c. is truly horrible.

† The great range passes on the south and east at the distance of about twenty miles; and on the north is a chain of mountains, probably the lesser Atlas of Ptolemy. See Lempriere 183.

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ally Christian edifices. The dress of the Moors is rather singular; and the ladies not only paint their cheeks and chins with deep red, but make a long black mark on the forehead, another on the tip of the nose, and several on the cheeks. The women of the haram are ignorant and childish, their employments being chatting in circles, and eating coscosu. Sidi Mohamed, the late monarch, had attained a great age, and his most remarkable characteristic was avarice; he was succeeded by one of his sons called Yazed.

BOTANY OF THE NORTH OF AFRICA.

Botany. The territory now occupied by the Barbary or piratical states, extending from the frontiers of Egypt to the Atlantic ocean in one direction, and from the Mediterranean sea to the Great Desert in the other, includes a tract of country proverbial in better times for its never failing fertility. The soil partaking of the general character of Africa is light and sandy with intervening rocks, though the vales of mount Atlas, and of the small streams that descend into the Mediterranean are overspread with a deep rich well-watered mould. Hence it is that the most characteristic of the indigenous vegetables are such as flourish on the open shore, or root themselves in the driving sand; while the plants of rarest occurrence are the natives of marshes and forests. Many of the saline succulent species, as the salsolæ and salicorniæ, a few of the bulbous rooted, as the Pancratium maritimum and scilla maritima, together with various kinds of tough long rooted grasses, among which the lygeum spartum, panicum Numidianum, saccharum cylindricum, and agrostis pungens are the chief, intermixed here and there with the heliotropium, soldanella and eryngo, overspread the flat arid shore, and prevent it from drifting with every wind. The dry and rocky intervals between the valleys of the interior bear a near resemblance to the heaths of Spain; like these they abound in scattered groves of cork trees and evergreen oaks, beneath whose shade, the sage, the lavender, and other aromatic plants are found abundantly, and in high perfection. The arborescent broom, the various species of cistus, the mignonette (reseda odorata), the sumach, the tree heath, together with the aloe, agave, and several kinds of Euphorbia and cactus, all of them patient of heat and drought, adorn the interrupted rocks, and afford both food and shelter to the goats by which they are inhabited. The valleys and cool recesses of the mountains are profuse of beauty and fragrance; besides the bay, the myrtle, the pomegranate, the olive, the jasmine and oleander, which are common both to Africa and the south of Europe, we find here in a truly wild state, the Aleppo

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pine, the red juniper, the date palm, the pistachia, the orange, and superior even to the orange blossom in odour, the white musk rose.

To the south of these chief Mahometan states are several countries little explored, as Drah, Sijelmissa, or Segulmessa, and the Land of Dates,* so called because that fruit constitutes the chief food of the inhabitants. Fezzan is a large and remarkable Oasis in the north of the great desert. The more central parts will be briefly illustrated towards the conclusion of this short description of Africa. Suffice it here to observe that, with a few exceptions of the more barbarous districts, the Mahometan faith extends to the great central ridge of mountains, or within ten degrees of the equator: and wretched must those regions have been, into which Mahometans could introduce industry and civilization, while in Europe and Asia they are the fathers of destruction and barbarism.

* According to some Biledulgerid implies the Land of Dates: but Dr. Shaw, p. 5. says it should be *Blaid al Jerid*, or Dry Country. In Arabic it would seem the Land of Dates is *Guaten Tamar*.

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THE WESTERN COAST.

JALOFS, FOULAHS, AND OTHER TRIBES—BENIN—LOANGO—CONGO.

ON this side of Africa, so far as hitherto explored, are innumerable tribes, as little meriting particular description as those of America. The Jalofs or Yolofs and Foulahs are the chief races on the rivers Senegal and Gambia; while Guinea, divided into the Grain, or more properly Windward coast, Ivory coast, and Gold coast, chiefly supplies slaves, a trade which commenced in 1517 by a patent from the emperor Charles V, obtained at the instance of Las Casas, the noted protector of the American savages. Hawkins, the great navigator, was the first Englishman engaged in this commerce. The settlements in Guinea are chiefly Portuguese; and the slaves from the river Senegal are called Mandingos, from an inland country of that name; while those from the Gold coast are called Koromantees; and those towards Benin Eboes.* For these slaves British goods have been exported to the annual value of 800,000*l.*

The countries of Benin and Calabar, which seem to afford the easiest access towards the interior, are followed by other savage tribes. The kingdoms of Congo and Angola are celebrated in Portuguese narrations, and present the most interesting objects in this wide extent of territory. To the south of these there is deep obscurity† till we arrive at the nations or tribes called Great and Little Nemakas, and Kaffers or Koussis, on the north of the European colony of the Cape of Good Hope.

* Edwards's West Indies, ii. 50. The forts and factories belonging to Europeans are about forty; fifteen Dutch, fourteen English, four Portuguese four Danish, three French. ib. 53. With the Koromantyns, Accompong is the supreme Deity far above all worship. Assarci is the god of the earth, and Iphoa of the sea, while Obboney is the author of evil. ib. 72. Among the more curious animals are the chimpanzees, in the face resembling negroes, but with straight hair. See Matthew's Voyage, p. 41.

† From Cape Negro to the Bay of Frio the coast can scarcely be said to be inhabited, but it belongs to the Cimbebas, a black nation whose king is called Sail. Dir. p. 94.

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Various Tribes. The repeated description of the manners of negro tribes would little interest the reader, and only a few peculiarities shall be remarked. The Yalofs are an active and warlike race, and esteemed the most handsome of the negroes. The Mandingos are widely diffused, and of a mild and sociable disposition. They wear cotton frocks of their own manufacture; but their huts and furniture are of the simplest kind. The Foulahs, near the river Gambia, are chiefly of a tawney complexion, with silky hair and pleasing features, being probably tribes that fled from Mauretania. The Foulahs of Guinea are of a very different description, and the identity of name might have been avoided. Teembo, the capital of the latter, contains about 7000 inhabitants; and there are iron mines worked by women, besides some manufactures in silver, wood, and leather. These Foulahs, it is said, can bring into the field not less than 16,000 cavalry; and being surrounded by twenty-four Pagan nations or tribes, these Mahometans never hesitate to make war for the sake of procuring slaves. To the west of these Foulahs is the English settlement of Sierra Leone, formed in 1787, for the benevolent purpose of promoting African civilization.*

At the other extremity of this coast are the Nemakas, whose manners have been illustrated by that romantic enthusiast Le Vaillant, who also pretends to have observed other tribes called Korakas and Houzouanas; the latter being, by his account, an active and hardy race, rather of a leaden colour, but with noses still flatter than those of the Hottentots.† They often sleep upon the bare ground; and their only arms are bows and arrows. Further particulars need not be added; as, if the author's accounts be veracious, he has still the unhappy art of making them wear every appearance of fiction.

Benin. The kingdom of Benin is asserted to be very considerable; and it is said that the monarch could raise an army of one hundred thousand. The capital of the same name is said to contain thirty streets of low houses, while the inhabitants are remarkable for cleanliness and propriety of behaviour. They are said to acknowledge a supreme benevolent deity, whose worship they deem superfluous, as he can neither be influenced, enraged, nor appeased; but they offer sacrifices to inferior and malignant spirits, in order to soothe their enmity.‡

*This benign colony has been recently attacked by the savages, a proof that conquest alone can civilize Africa. By the treaty of 1783 the river of Senegal and its dependencies were left in the possession of the French, who had extended their factories about 500 miles from the shore. In despite of D'Anville, recent French writers in general call the Senegal the Nigir. Adanson observes, p. 90, that the rainy season, or what is called the winter, is the hottest. The village Mbao, p. 200, corresponds with the American names in Dobrizhoffer; and the burial of the dead in huts covered with sand, p. 203, is that of the Patagonians described by Falkner.

† Second Journey, iii. 166. but see Dapper's Africa for the Housaquas.

‡ The river of Benin appears to be considerable from Bosman's account, p. 399, but is divided into many branches, and the climate most pernicious. The government seems a singular aristocracy of three chiefs, who control even the king. Strings of *coral* are worn as badges of honour; but this coral, p. 408, is a pale red earth or stone like speckled red marble, and there is also, p. 102, a blue sort. Was the coral of Tibet of this kind? Here, as in almost every part of Africa, the commonest events are imputed to witchcraft. Benin is only a village of clay houses, there being no stones in the country larger than a man's fist.

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Loango. Loango is a country of no small extent on the north of Congo, and of which an account has been published by Pigafetta and others, transcribed at considerable length in Dr. Dapper's Africa, from which that of Ogilby is chiefly translated. The people are rather industrious, as they are weavers, smiths, potters, carpenters, and makers of canoes, caps and beads. The exports are elephants' teeth, copper, tin, lead, iron. The common people are held in a kind of slavery, but may migrate. The superstition of magic prevails, as usual among the African tribes; and the supposed enchantment or superior power is called *mokisi*, while a magician is styled *ganga*.* But the best and most recent account of Loango is that drawn up by Proyart, from the memoirs of Belgard and other French missionaries, who settled in this country in 1766.† The capital, Bouali, is by the French called Loango. The dry season begins with April, and ends with October; but the greatest heat is in the rainy season, or the other six months.‡ Our author asserts that even the mountains are of mere clay, without rock or stone; and the rivers do not increase in the rainy season. The soil seems to be wholly a compact clay, which sometimes splits into vast abysses. Vegetation however flourishes; and among the trees are the cocoa, banana, orange, lemon, pimento, with the cotton shrub, and sugar cane. The palm wine, a favorite African beverage, is procured by piercing the tree where the fruit begins to swell from the trunk.

Congo. The latest account of Congo seems to be that by John Anthony Cavazzi de Monte Cuculo, a capuchin missionary, which appears however to be somewhat tainted with false miracles and fanaticism.|| In October begins what may be called the spring, but heavy rains continue for two or three months. About the end of January is one harvest; and in March more gentle rains commence and continue till May, when there is a second dry season or harvest; their nominal winter beginning in July. The Zahir or Zair is a grand and rapid river, and the mouth said to be five leagues in width, freshening the sea to a great distance. It has vast cataracts, near one of which is a mine of bright

* In Anzico, a kingdom to the north-west, (the royal title is Micoco) Dapper asserts that the markets were supplied with human flesh; nay, it is even affirmed that all the dead are devoured. Univ. Hist. xiii. 266. Angola is said to produce the orang outang, there called quoas morrou; and Tulpius has described one sent to the Prince of Orange, while Dapper and Ogilby have published a print. From Angola many slaves are exported. The proper name of the country seems Dongo, while N. Gola is the royal style, but the N is scarcely pronounced. Proyart, 175.

† Paris, 1776, 12mo. with a curious map of the mouth of the Zahir.

‡ P. 11. The climate is most pernicious to strangers, but the use of flannel and the bark is recommended by Mr. Maxwell. See his chart of the river of Congo, or the Sailing Directions of the African Pilot, p. 88. But the natives are so healthy that the king of Kacongo was 128 years of age. Proyart, 103 and 388.

|| It was printed at Bologna, 1687, folio; and translated by Labat in his *Ethiopie Occidentale*, 5 vol. which must not be confounded with the *Afrique Occidentale* of that most voluminous editor and compiler.

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yellow copper.* The Dante is an animal like a small ox, with bright black horns, resembling those of a goat. The houses are round thatched hovels, even in the chief city, called St Salvador by the Portuguese. The Congoese have the negro colour without the features, which rather resemble the European; hair sometimes of a deep reddish brown, and eyes of a dark green or sea colour. Once a year the graves are opened, and the bodies or bones decorated. This custom seems peculiar to Africa and America.† Congo produces millet, maize, and excellent fruits; with the sugar cane, and varieties of the palm. There are said to be mines of iron and copper: and among the animals is named the *cojae morrou*, which seems the *orang outang* of Borneo. The accounts of the Portuguese writers, the chief authorities concerning Congo, and the neighbouring states, often border so much on the fabulous, that amidst doubtful circumstances brevity becomes the safest choice. If they be credited, the aliconda, a tree of this country, is of so great bulk, that ten men cannot fathom it, while the fruit resembles a gourd, and the bark yields a coarse thread, of which ropes are formed: a description which would seem to indicate a species of the cocoa palm.‡

BOTANY OF THE WESTERN COAST.

This coast appears in general to be sufficiently well watered, and accordingly bears a striking resemblance in its vegetable productions to the opposite shore of the American continent. The usual plants of the

* The Zaïr, or river of Congo, is very rapid, and brings down numbers of floating islands, like the river Benin, some a hundred yards in length. African Pilot, S. D. p. 88. But the mouth is only somewhat more than two leagues in breadth. Ib. 86. The English yearly export from Yomba many cargoes of a red dyeing wood. Proyart, 159; who adds, p. 167, that 200 regular troops would conquer all the south of Africa.

† From Proyart's History of Loango, p. 62, it appears that the Portuguese have been completely expelled from this kingdom. When the Dutch under Prince Maurice subdued a part of Brazil, they found it necessary to attack Angola, 1640, for a supply of slaves, without which the other conquest would have been of no value. Their transactions in this country are related by Barlæus in his account of the expedition to Brazil, Cleves 1660, 12mo. Of Congo, &c. there is a good account in the modern Universal History, which is carefully compiled from original authors. See vols. xv. xvi edit. 1760, or xii. and xiii edit. 1781. Slavery is not a foreign import, but indiginal in Africa; and in Benguela, a kingdom or province to the south of Angola, the natives will sell their relations or children from mere wantonness. Ib. xiii. 7. The chief worship of the Giagas consists in frequent sacrifices of human victims, particularly children. In such a country slavery is a deliverance. The Galas seem to be a tribe of the Giagas: who are said on the south to have once penetrated as far as the Cape of Good Hope. Univ. Hist. xiii. 251.

‡ See Dapper's Africa.

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tropical climates are found here in perfection and in great abundance, but we yet want a scientific catalogue of indigenous vegetables to ascertain what are the peculiar and characteristic features of its flora. The low shores of the rivers, as far as the tide reaches, are bordered with mangroves and bamboos: The luxuriant Guinea grass, the sugar-cane, ginger, turmeric, and cocoa-nut, with various other species of palms, root themselves in the moist deep soils. Numerous kinds of dyeing woods, and of timber fit for ornamental or useful purposes, abound in the forests. Indigo and cotton of a superior quality are met with; both wild and cultivated. The sweet cassava, differing from the American manioc in being perfectly innoxious and wholesome even without cooking, the Guinea pepper or capsicum, the yam, sweet potatoe, rice, maize, gourds and melons of all kinds, are the principal food of the inhabitants, and probably are indigenous. The copal tree, the sandal wood, ebony, and mimosa Senegal, from which exudes the mucilaginous gum of the same name, are plentiful in the drier and sandy parts of the country.

COLONY OF THE CAPE OF GOOD HOPE.

THIS territory, upon the recent English conquest, was found to be of more considerable extent than had been supposed, being 550 English miles in length, and 233 in breadth, comprehending an area of 128,150 square miles.* The white inhabitants, exclusive of Cape Town, do not exceed 15,000; and the whole may be about 20,000. The Dutch settlement was formed in 1660. To the south-east of Cape Town are some small vineyards, which yield the noted wine called Constantia; and even in remote districts there are plantations of various kinds: but large tracts are irrecoverably barren, consisting of ranges of mountains, and level plains of hard clay sprinkled with sand, commonly called *karroos*. The mountainous chains run from east to west, being probably terminating branches of a spine passing north and south like those of the Uralian ridge. The first ridge is from twenty to sixty miles from the sea: the second, called the Zwart Berg, or black mountain, is more lofty and rugged, and about the same distance from the first: the third is the Nieuveld, which with the second incloses a great karroo or desert, rising like a terrace about 300 miles in length east and west, and eighty in breadth. The country is more fertile towards the Indian ocean than towards the Atlantic,

* Barrow's Travels, 1801, 4to. p. 9.

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a character which seems to pervade Africa; as on the east is Abyssinia while on the west is the Zaara. The chief resorts of trading vessels are False Bay on the south and Table Bay on the north, which opens to Cape Town. The mountains in the vicinity of the Cape are of blue schistus, and indurated clay, mingled with balls of granite, blocks of which substance are common on the hills of southern Africa, strangely hollowed out into cavities, the resorts of runaway slaves. On the granite and clay is siliceous sand-stone, surrounded by granular quartz; this description may extend to most of the inland mountains; but those called the Copper mountains, south latitude 29° 40′, supply a prodigious quantity of that metal in the form of vitreous ore, which is smelted by the Damaras, a Kaffer or Koussi nation in the vicinity. The rocks called the Pearl and the Diamond are vast fragments of granite; and Mr. Barrow discovered far to the north what he called the Nemaka Pearls, consisting of large rounded masses of that stone. There are some wolves and hyenas, and various kinds of antelopes; and among the birds, eagles, vultures, kites, crows, turtle doves, &c. more inland are all the wild and ferocious animals of Africa, and hippopotami abound in the rivers. Mr. Barrow wounded a condor, the spread of whose wings was ten feet and one inch.

Botany. There are few places whose natural history has been so ably explored as the territory of the Dutch colony at the Cape of Good Hope and the countries adjacent: nor does any seem to have better repaid the labour of research. The botany of southern Africa is more rich and peculiar than that of any other country, and most of the singular and beautiful inhabitants of our stoves and green-houses have been hence procured. Numbers however equally remarkable remain behind, which from their size, or from accident, or from the necessity of selection among a multitude, are as yet strangers to European cultivation. The class of bulbous-rooted plants alone might be selected as peculiarly characteristic of the Cape, for no where else are they found so abundant, so various, or so splendid; what pen can describe the innumerable gay varieties of the ixia inoculata, or the exquisite fragrance of the nocturnal ixia cinnamomæa; who can reckon up the beautiful species of iris, morea, gladiolus, amaryllis, hæmanthus and pancratium, which at the conclusion of the autumnal rains adorn the meadows at the foot of the mountains with every brilliant hue that can be imagined? Nor is it only at one season of the year that this splendid scene is exhibited, every month has its peculiar beauties; to the bulbous plants succeed the species more patient of heat and drought: the bright gnaphaliums, the xeranthemum fulgidum, and speciosissimum, remarkable for their flower of red, yellow and silky white, the scented geraniums and pelargoniums glowing on the sides of the hills intermixed with the hundred species of shrubby and arborescent heaths, compose a scene of unrivalled magnificence, where the eye wanders with delight from beauty to beauty, till fatigued with splendour it repose on the light silvery foliage of the portea argentea, on the vigorous green of the spreading oak, or the still deeper hue of the aspiring stone pine. The hard and stony wastes are scattered over with succulent plants of the stapelia, mesembryanthemum, euphorbia, crassula cotyledon, and aloe; while such of them as assume the height

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and character of trees, mixed with the weeping willow and mimosæ of various kinds, overspread the banks of the temporary torrents. The forests are principally on the eastern border of the settlement, and have been but little explored; they furnish the iron wood, the African oak, the Hassagai wood, the texus elongatus or yellow wood, a few species of Zamia or Sago palm, the scarlet flowered guaiacum, and the incomparably splendid strelitsia reginæ.

For a more minute account of this interesting colony, the only European settlement in Africa that deserves the name, the reader is referred to the excellent work already quoted, which forms a striking contrast with the gasconades of Le Vaillant. Mr. Barrow visited the Koussis in the east: and conceives that a belt of that race spreads across to the Atlantic. The Nemakas are of the same race with the Hottentots;* but the Damaras on the Copper Mountains, and north to the Orange river and tropic of Capricorn, are Koussis, a race whom our author suspects to be of Arabian extract, as they widely differ from the Hottentots and the negroes, and are acquainted with the smelting of copper, and some other rude arts. The country of the Damaras is so barren and sandy that they cannot keep cattle. The orange river, also called the Groot or Great river, seems to rise about south latitude 30°, longitude 28° east from Greenwich, and passes west by north till it joins the sea between the Great and Little Nemakas. There are high cataracts; and it has inundations like the Nile. On the shores are carnelians, calcedonies, agates and variolites. "The rains in the great mountains beyond the Caffers and the Tambookies, along the feet of which the Orange river runs, collecting their tributary streams in its passage, commence in November, and cause the inundations to take place towards the Nemaka country in December."† Mr. Barrow's account terminates with part of the country of the little Nemakes, included in the colony: beyond which are the Copper Mountains and sandy deserts; and he ridicules Vaillant's supposed excursions in this quarter, while he never passed the Orange river. Yet Mr. Barrow seems a stranger to the camelopardalis, which the French traveller appears certainly to have hunted and brought to Europe. The preposterous vanity of Vaillant greatly injures the credibility of his narrative, and his map

* Sparrman, i. 183, observed the natural complexion of the Hottentots to be an umber yellow. By his account, as well as that of Barrow, the lion is an insidious and cowardly animal. This ingenious traveller, ii. 119, &c. considers the hippopotamus as a larger animal than the rhinoceros, and next in size to the elephant.

† Barrow, p. 298. The Tambookies are to the north-east of the Koussis; thus according to our author's idea there is a great range passing north-west and south-east, about 32 or 33 degrees. This great range, Paterson, p. 125, says, runs east and west, at the distance of about four days' journey from the mouth of the Orange river, being called the mountains of Brenas; probably the inmost terrace of the Table land of southern Africa, which seems to be pervaded by the Jagas, a wandering nation like the Tatars. Near the Orange river Paterson observed that the natives cut off the first joint of their little finger.

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of the colonial possessions cannot be compared with the actual survey by Mr. Barrow. To the north of the Green river the map of the French author seems imaginary, as he is a stranger to the Damaras, though he insert the Copper Mountains.*

* His Orange River flows from north-east to south-west, the reverse of the truth: and beyond the Great Nemakas he places a stream called the River of Fish, with the tribes of Kabobikas and Housouanas under the Tropic. The camelopardalis he found in latitude 27°, the rhinoceros in 25. Perhaps there may be jealousy on one side, as well as exaggeration on the other.

The Nemakas are mentioned by Dapper and Ogilby who add the Housakas, certainly the Housouanas of Vailant; but as some modern philosophers never read, they of course make many discoveries. The same learned author, First journey, ii 145, quotes Pliny and Herodotus, for some account of the Hottentots! There is no danger from learning; but that from reasoning ignorance is very great. The ancient philosophers were men of learning; the modern too often men of consummate ignorance; and we all know and feel the evil effects of the ignorance of Rousseau, to instance a solitary example.

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THE EASTERN COAST.

NATAL.—DELAGOA.—MOCARANGA.—MOZAMBIC, &c.—ADEL.

ON leaving the colonial possessions, in this direction, first appear the Kaffers, or properly Koussis, and the Tambookies, beyond whom there is deep obscurity. What is called the coast of Natal is followed by the bay of Delagoa. Further to the north, and opposite to the large isle of Madagascar, are Sabia, Sofala, and Mocaranga, regions better known from Portuguese narratives. The coasts of Mozambico and Zanguebar, on the last of which is the city of Melinda visited by Vasco de Gama, are succeeded by the desert and obscure coasts of Ajan and Adel; the last bordering on Abyssinia, and completing the circuit of Africa.

DELAGOA. Of the bay of Delagoa, and the adjacent country, an account has recently been given; and it is frequently visited by vessels employed in the southern whale fishery.* One of the chief rivers which enters the bay is the Mafumo: and the natives on the northern and southern banks follow distinct customs, the men on the former wearing singular helmets of straw. On the southern side are fourteen chiefs, subject to a king called Capelleh, whose dominions extend about 200 miles inland, and about 100 on the sea shore, computed by the natives in days' journies of twenty miles each. Cattle and poultry are abundant, and may be purchased for a trifle; the favourite articles being blue linens, old cloths, brass rings, copper wire, large glass beads, tobacco, pipes, &c. The fish are numerous and excellent; and turtle is taken on Deer Island. The soil a rich black mould, sown with rice or maize in December or January; the dry season lasting from April till October. There are many fruit trees and useful plants, particularly the sugar cane; but no horses, asses, nor buffaloes. The wild animals are the tyger, rhinoceros, antelope, hare, rabbit, wild hog, with Guinea hens, partridges, quails, wild geese, ducks, and some small singing birds. The natives are Kaffers, that is pagans, of a bright black colour, tall and stout, go nearly naked, and are tatooed. They are a good humoured and harmless people, and fond of excursions on the river, there being what is called a king of the water, only yielding in power to Capelleh. Like the rest of Africa, the country is not populous; and Mr. White supposes that the inhabitants around this large bay may be from six to ten thousand.

* White's Journal of a Voyage from Madras, &c. 1800, 4to.

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Mocaranga. The most civilized and powerful kingdom seems to be that of Mocaranga, absurdly called Monomotapa,* which has been styled an extensive empire, while the whole of Africa would not form an empire, equal to the Russian, and would certainly be found inferior in population. The soil of this country is said to be fertile, though the plains be exposed to great heat; while the mountains called Lupata, or the Spine of the World, form a great chain stretching from north to south covered with perpetual snow. The people are almost naked: and, like those of the western coast, superstitiously afraid of magical charms. According to the doubtful accounts of this country, the king, on days of ceremony, wears a little spade hanging by his side, as an emblem of cultivation. The children of the great are retained at court as hostages: and the king sends annually an officer to the provinces, when the people testify their fidelity by extinguishing their fires, and kindling others from the officer's torch. There are several queens, one of whom was protectress of the Portuguese, and another of the Moors. The emperor's guard is said to consist of women lightly armed. The Portuguese have here two fortresses, and another station near the mountains of Fura, which

* This is the appellation of the monarchs, not of the kingdom. The Cuama or Zambezi, a large river, encircles the kingdom on the west and north, the larger or western part is styled Mocaranga, the eastern Botonga. See D'Anville's map of Africa, 1749. Sofala and Sabia are considered as parts of this monarchy. The king's residence was at Zimbao, about 240 miles inland. The accounts of Mocaranga are very imperfect when compared even with those of Congo, being derived from the general Portuguese historians, Barros and Faria, with Marmol, Linschoten and Osorio. Vincent Le Blanc is not a credible traveller, but his story of Alfondi is well told. See Modern Universal History, vol. xv. edit. 1760. The remarkable history of Zinga, queen of Angola, is from Cavazzi.

M. le Grand, in his dissertations annexed to Lobo's voyage to Abyssinia, has extracted an account of Mocaranga, &c. from the *Ethiopia Oriental* of John dos Santos, a Dominican, printed at Evora, 1609. The great river Zambezi is said by the natives to rise in a vast lake, and to receive its name from a village not far from its source. It is very rapid, and in some places a league in breadth: at thirty leagues distance from the sea it divides into two branches called Luabo (the Suabo is a river which falls into the Zambezi), and the Guilimane, or river of Welcome Tokens, because Vasco de Gama there erected a stone pillar. The Delta consists of five mouths; but the Luabo is the chief stream, and is navigated as far as the kingdom of Sicambé, above Tété, where there is a cataract of stupendous height; and rocky rapids for twenty leagues to the kingdom of Chicoua, and the silver mines. The Zambezi inundates the country like the Nile: but in the month of April. From Massapa in Mocaranga, which is the chief kingdom of the Monomotaps or Emperor, great quantities of gold are brought, being found in the neighbourhood of the vast mountain Fura or Afura; where it is said, that there are ruins of edifices built with stone and lime, while even the modern palaces are only constructed of wood and clay, covered with briars. Fura is 200 leagues from the sea. The forest of Thebé, on a river of the same name, affords trees of wonderful beauty and magnitude. Amber is said to abound on the coast (ambergis?) and there is a fishery for pearls near the islands of Bocicas. Dos Santos argues that this was the Ophir of the ancients. As to Tarshish, the word in Scripture sometimes merely implies the ocean, Atlantic or Indian; but in other passages seems as clearly to denote Tartessus near Cadiz in Spain.

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are said to abound in gold. It is to be regretted, that they do not publish accounts of their African settlements, which would be extremely interesting in the obscure geography of that continent; but they are of all nations the most illiterate, and the most determined enemies of their own celebrity.

The Moors or Arabs are established in considerable numbers on the coasts of Ajan and Zanguebar, and seem to have invented the term of *Kafraria*, for in the Arabic *Kafre* signifies an unbeliever; whence the appellation, as being wholly vague and uncertain, should be dismissed from geography.*

Mozambic. The kingdom of Mozambic or Mozambico is considered as subject to the Portuguese, who had a considerable town of the same name, situated in an isle, the governor being dependent on the viceroy of Goa† Zanguebar is said to be a marshy and unhealthy country, but abundant in elephants: it is chiefly inhabited by the Mocuas, partly pagans partly mahometans. The little kingdom of Quiloa is also dependent on the Portuguese, with that of Mombaza, from which they were expelled in 1631, but regained their possessions in 1729. Melinda, a mahometan state, is also partly dependent on the Portuguese, who have a fortress in the city, and several churches. The coast of Ajan is chiefly Mahometan; and carries on a considerable trade in ivory, ambergris, and gold. Brava, a little aristocracy, pays tribute to the Portuguese, who have not been able to encroach on Magadasho, or on the kingdom of Adel, which last was dependent on Abyssinia, and is said to be a fertile country. This state was founded by a mahometan prince, at the beginning of the sixteenth century; the capital being Azagurel, standing on an eminence near the river Hawash, which comes from Abyssinia; and Zeila, on the Arabian gulf, is a considerable port.

* It is probable there may be recent Arabian descriptions of Africa, which ought to be sedulously inquired after, as the Moors are intimately acquainted with the greater part of that continent. The Kaffers, so called in the south, ought to be distinguished by their native name Koussi, Barlow, 219; and they cannot even pronounce the word *Kaffar*.

† Dapper says that this town was even supplied with rice, wheat, and other provisions from Goa.

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THE ISLE
OF
MADAGASCAR.

THIS noble island is about 840 geographical miles in length, by about 220 of medial breadth, being esteemed one of the largest in the world, though seemingly exceeded by Papua, and still more by New Holland, if the latter must be classed among islands. It seems to have been unknown to the ancients, for Ptolemy's geography of eastern Africa appears to terminate with the isle of Pemba, probably his Menuthias, he being a stranger to the islands of Zanzibar and Monfia, with the islands of Comoro. His Cape Prasum is probably some head-land, a litttle further to the south, discovered at a distance by some ship navigating these seas. However this be, the first certain mention of Madagascar is by Marco Polo, in the thirteenth century, who describes it by its present name, having received his knowledge from the Arabs.* Among other singularities, he mentions that large bird which is called ruc by the Arabs, and by the moderns the condor. It would seem that the Mahometan religion had made some progress: but the discoveries of the Arabs in Asia and Africa form an important object in geography, which deserves to be investigated by some writer eminently versed in oriental lore.

This island appears to have escaped the notice of Gama, who coasted along the African shore; and is said to have been discovered in 1506, by Lorenzo Almida, whence perhaps it is called the isle of St. Lawrence. The French navigators in the reign of Henry IV, called it Isle Dauphin; and the latter ingenious people having repeatedly settled here, it becomes perspicuous from the accounts of their writers, while the Portuguese settlements remain in comparative darkness. Rochont informs us that this island may contain about two hundred millions of acres of excellent land, watered by rivers and rivulets, from a long chain of mountains passing in the direction of the island, and separating the eastern from the western coast, but approaching nearer to the former. The two highest mountains are Vigagora in the north and Botistmeni in the south. The scenery is strikingly grand and picturesque, diversified with precipices, cataracts, and immense forests.

* Lib. iii. cap. 39.

† Voyage to Madagascar, 1792, 8vo.

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The flax, from the description, seems to approach that of New Zealand; other products are, sugar canes, cocoa nuts, bananas, tobacco, indigo, pepper, gum lacca, benzoin, amber, ambergris, &c. and the variety of valuable plants is prodigious. Cattle, buffaloes, and sheep abound. There are no lions, tygers, elephants, nor horses. Many of the most valuable minerals occur, among which are beds of pure rock crystal, often used for optical purposes, and erroneously styled Brazil pebble,* and it is said three kinds of gold ore, with topazes, sapphires, emeralds, and spotted jaspers, commonly called blood stones. The natives are rather above the middle stature, and are of various origins; some being negroes, others tawny or copper coloured; but the complexion of the greater part is olive; and it would seem that the Arabs, in very early times, penetrated very far into Africa, especially if the Koussis or Kaffers above the Cape of Good Hope be of Arabian Extract, as Mr. Barrow insinuates; a topic of curious inquiry, which might lead to new views of African population and manners. Rochon shews that propensity for savages which has recently disgraced French writers, and of which it is to be presumed the nation is radically cured, the bleeding having been proportioned to the fever. His arguments prove that savages are happy, because they have no care, nor forethought, which is very true, and so is every brute animal. The French settlement of Fort Dauphin is in the south-east extremity of the island, and the French are chiefly acquainted with the southern part. Almost all the villages are built upon eminences, and surrounded by two rows of strong palisades, within which there is a parapet of earth, four feet in height; and sometimes there is a ditch, ten feet in breadth and six in depth. Their chiefs are only known by their red caps, worn by the common Moors; and of which there is a noted manufacture at Tunis. Their authority is inconsiderable, yet they are sometimes regarded as proprietors of the land, and receive a small quit-rent. Writing is not unknown, and there are some historical books in the native tongues; but their learned men whom they call *ombiases* use only the Arabic characters. In the province of Matatan are many magicians, greatly dreaded by the ignorant natives. The paper is made of papyrus, which the Madagasses call sangasanga; and the ink is the decoction of a certain bark. The whole island is said to have been conquered by the Arabs about three hundred years ago: but their first settlements here and in southern Africa, may be nearly as ancient as those in Abyssinia, and of Mahometanism there are only faint traces. From the account of Rochon the traditions of many tribes point to a very early Arabian origin. The nobles are styled Roandrians: and the Anacandri are descended from those and black women. The native blacks are classed as descendants of the ancient chiefs, and preserve their right of killing animals, usurped in other cases by the Roandrians, who regard the profession of a butcher as the most honourable. The next class cannot kill animals, but have some privileges unknown to the Ontzoa or third cast. The Ondeves, or *lost men*, are slaves by extraction. They suppose that seven women ori-

* It is quarried in huge blocks near the bay of Antongil, and also in the mountains of Ambotismenes in the northern part of the isle. Rochon, p. 347.

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ginally created, were the mothers of the different casts; and there is a faint but singular resemblance of Hindoo traditions. Are the tawny tribes from Hindostan, or have these notions arisen from commerce or intercourse? Ideas of equality are unknown; and the lower casts never aspire to be butchers. Polygamy seems confined to the chiefs; the women are lively and cheerful, and form the chief delight of their husbands. The achievements of the French in Madagascar have been detailed by many of their writers, from Flacourt to Rochon. The most singular perhaps is that of the Polish adventurer Benyowsky, who, pretending to establish an independent power among the natives, was attacked by a detachment sent from the Isle of France, and slain on the 23d of May, 1786.* Few countries in the world are more deserving to be the seats of a powerful independent monarchy.

The knowledge that we have of the plants of Madagascar is chiefly derived from a few French authors; of these Flacourt is the principal, having given a list of three or four hundred. Unfortunately however he mentions only their native names, and describes them by fancied resemblances in their forms or medical properties to those of Europe. Hence the greater part are wholly unintelligible, nor is it without some hesitation that we give the few following Linnæan species, as probably included in the catalogue of the abovementioned author.

Botany. Of esculent plants there are the rice, banana, yam, nymphæa lotos, several kinds of dolichos or kidney bean, gourds or water-melons, and cocoa nuts. The fruits are pine apples, tamarinds oranges, and pomegranates. The spices and other condiments are common and betel pepper, ginger, turmeric, cinnamon, and sugar. The Indian fig grows here, as also does the ebony, the bamboo, the cotton and indigo.

A few Madagascar plants have been obtained of late years, of which the only species interesting to the general reader are the Mauritanian mulberry with green fruit, and the gummiphora Madagascariensis, whose juice concretes into an elastic gum exactly similar to the caoutchouc of Cayenne.

* See his Memoirs, London, 1790, two vols. 4to, v. ii. p. 93, &c. and Rochon's Madagascar, p. 253. The last author, p. 164, gives a curious account of the Kimos, a nation of dwarfs, living amidst inaccessible rocks.

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THE SMALLER AFRICAN ISLANDS.

PEMBA.—COMORO.—MAURITIUS AND BOURBON.—KERGUELEN'S LAND.—ST. HELENA.—ASCENSION.—CAPE VERD ISLANDS.—CANARIES.—MADEIRA.

THESE shall be traced from the eastern coast towards the west. Those in the Red Sea are too minute for general geography; and the isle of Socotra has already been described under Arabia, to which it belongs.

PEMBA, &c. The islands of Pemba, Zanzibar, and Monfia, are opposite to the coast of Zanguebar. Pemba is said to be about 100 miles in circumference, governed by a king, who pays tribute to Portugal, to which power the two others are also said to be subservient. At a considerable distance to the east are the isles of Mahé and Almiranti, interspersed with many rocks, and of small account.

COMORO. The islands of Comoro are four in number, of considerable size, particularly Angaziza, or the greater Comoro. That of Anzoan* has a convenient harbour, sometimes visited by ships passing to India. These isles are governed by Pagan or Mahometan chieftains, tributary to the Portuguese; and are reported to be very fertile in rice, oranges, lemons, sugar, cocoa, and ginger, the natives carrying on some trade with the Portuguese of Mozambico. The domestic animals resemble the European.

MAURITIUS AND BOURBON. To the east of Madagascar are the Islands of Mauritius or France and Bourbon, French settlements well known in the commercial world.† The Isle of France has a tolerable port, the centre of the oriental force and commerce of the French. The Isle of Bourbon, colonized in 1654, is about fifty leagues in circumference, of a circular form, rising to high mountains in the centre; and there is a noted volcano, difficult of access, at the summit of a mountain a league from the sea: the eruptions are frequent and continual. Mauritius, or the Isle of France was first possessed by the

* This isle, also called Henzuan, Juhanna, is elegantly described by Sir William Jones in a paper inserted in the Asiatic Researches. It is peopled by Arabs

† A prolix history of Mauritius was published in 1801, by Charles Grant Viscount de Vaux. The Isle of Bourbon has been lately called *Reunion*.

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Dutch, who abandoned it in 1712, and the French settlement began to acquire some stability under Bourdonnais in 1734. There are two crops every year of wheat and Indian corn, but manioc was the food of the negroes. The Isle of Bourbon produces sugar-canes; and in both the cattle are numerous. In 1766, M. Poivre, author of the Voyage of a Philosopher, was governor of these isles, and the advantages of appointing men of science to such stations was evident from his introduction of the bread fruit-tree, and also of the nutmeg and cinnamon.*

KERGUELEN'S LAND. Far to the south lies Kerguelen's Land, so called from a recent French navigator; but by Captain Cook the Isle of Desolation. This region must be classed among the African islands, as it approaches nearer to that continent than to Australasia, which may however claim the small islands of Amsterdam and St. Paul, only frequented on account of the seal fishery. Kerguelen's Land is described and delineated in the last voyage of Cook, to which the curious reader is referred. In wildness, and iron-bound sterility, it rivals New Georgia, and the southern Thule. Proceeding towards the west are several other desert islands surrounded with the floating ice of the antarctic ocean, and chiefly discovered by Marion in 1772. That of Tristan da Cunha is unknown to recent accounts.

ST. HELENA. The south is here the region of cold and desolation, and on proceeding towards the north the scene improves. St. Helena is a beautiful island, possessed by about three hundred English families, the governor residing in a fort with a small garrison. There is a village, with a church, in Chapel valley. The planters are occupied with their cattle, hogs, and poultry; but when East India ships arrive each house becomes a little tavern. This interesting isle was discovered by the Portuguese, who stocked it with animals and fruit trees: but there was no settlement when the English took possession about the year 1600. There is only one harbour, which is difficult of access. The isle of Ascension, between Africa and Brazil, was discovered in 1508; and has an excellent harbour, frequented by homeward bound ships, who here find turtle and sea-fowl. This island is of considerable size, but mountainous, and the soil a barren sand.

ST. THOMAS. On approaching the African shore, to the north of Congo, and passing the neglected isle of St. Matthew, where the Portuguese have a small settlement, first appears the isle of Annabon, followed by St. Thomas, Prince's Isle, and that of Fernando Po. The Isle of St. Thomas was discovered by the Portuguese about 1460, and settled by them in despite of the climate, which is foggy and singularly unhealthy. But the soil is remarkably strong and fertile, domestic animals abound, and the produce of sugar is prodigious. There is a

* See Rochon's Introduction to his Voyage to Madagascar, in which he pretends to point out some mistakes of M. d'Aprés, the celebrated hydrographer of the Eastern shores. To the north of these isles are several shoals. The isle of Seychelle, one of the Almirantes, is well wooded, but only inhabited by tortoises and alligators: the French formed there a small establishment for the cultivation of nutmegs and cloves. The remote isle of Diego Garcia is, by our author's account, in the form of a horse shoe; and there is a good haven. Ib. bii.

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bishop, who is a suffragan of Lisbon. The town Pavoacan is on the eastern side of the island. Prince's Island is also fertile, with a good harbour, and a town of about two hundred houses on the northern shore: it is inhabited by about forty Portuguese and 3000 negro slaves. Fernando Po seems destitute of any good harbour, and abandoned to the goats and seals: but the Spaniards retain the nominal possession.

Several other small isles arise on the African shore*; and it is probable that in ancient periods these were still more numerous, but the sand which has blocked up many of the rivers, must have united the islands, particularly at their mouths, with the continent. The first distinguished group in this quarter is that opposite to Cape Verd, whence it has received its name.

Cape Verd Islands. These isles were discovered by the Portuguese in 1446. They are ten in number, the two largest being that of St. Jago in the south-east and St. Anthony in the north-west. The air is hot and unhealthy; and most of the isles stony and barren; the chief trade being in salt and goat skins. Some produce rice, maiz, bananas, lemons, oranges, citrons, with cotton, and sugar-canes; and there is abundance of poultry. Ribira, the chief town and bishopric, is in St. Jago.

Canary Islands. Far to the north the Canary Islands, or Fortunate Islands of the ancients, form an interesting range from west to east. They were conquered by the French in 1402 under the celebrated Jean de Bethencourt, afterwards styled king of the Canaries†. The isle strictly called Canary is smaller than Fuerta Ventura, and Tenerif. The latter is the most remarkable, deriving its name, according to Glas, from *thener*, a mountain, and *if*, white.

Peak of Tenerif. In the recent astronomical voyage of Verdun de la Crenne there is an accurate account of the Peak of Tenerif, which was found 1742 toises above the level of the sea, or about 5000 feet lower than Mont Blanc. It is said to be visible at the distance of *eighty* leagues‡. This celebrated mountain cannot be ascended, on account of the snows, except from the middle of July to the end of August. First occur pumices, interspersed with obsidian of beautiful and various colours, followed by broken lava. The summit resembles a cone placed on a table, or rather small base; and can only be ascended by a zig-zag path on the south. The cold is extreme; the nails become black, and the hands and feet swell. In the middle of the summit is a deep reversed cone, called the cauldron, about fifty fathoms in diameter, and bordered with hideous calcined rocks, mostly red or white, the perpendicular depth being about 150 feet: at the bottom

* Among these may be mentioned the Bissagos, and the little isle of Goree, a settlement sheltered by the bold prominence of Cape Verd.

† Histoire de la premiere decouverte et conqueste des Canaries: faite des l'an 1402 par Messire Jean de Bethencourt, Chambellan du Roy Charles VI. Escrite du temps mesme par F. Pierre Bontier Religieux de S. Francois, et Jean le Verrier, Prestre, domestiques dudit Sieur de Bethencourt. Paris 1630, 8vo. See also Glas's History of the Canary Islands; London, 1764, 4to.

‡ Tome i. p. 121; supposing the height to be 1742 toises, the summit might be visible at sea at the distance of thirty-five leagues.

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are perceiveable reddish spots, upon a kind of white earth like plaster, and mingled with sulphur, which is sometimes so volatile as to evaporate from paper, and if folded up will escape after burning the paper and the pocket. Around are many little mouths, from one to four inches in diameter, which at short intervals respire as it were a thick hot fetid smoke. The largest hole, about eight inches in diameter, is within the crater, exhaling with a sound like the bellowing of a bull; and the smoke is so hot as instantly to burn the hair of the hand. Yet the rocks immediately adjoining are covered with wet moss, like those by the side of a cascade. On descending about midway is visited a cave in the midst of the lava, which seems to pierce a considerable depth, and to be paved with ice, above which are about two feet and a half of the purest water, but extremely cold: and there seems an opening of great depth, at one side of the cave, through which it is said some animals ascend to drink the water. In winter this cave is blocked up; and the summit is covered with a thick snow resembling polished silver.

The ancient inhabitants of the Canaries were called Guanches by the Spaniards, and were strangers to the use of iron, their weapons and instruments being of what they called *tabona*, or black obsidian. The chief trees are wild olives, cypresses, laurels, and pines of two kinds. It was reported by Spanish writers that there was a tree in the isle of Ferro which gathered the vapours, so that, dropping from the leaves, the inhabitants were thus supplied with water. The product of these islands is wheat, barley, and oats; and the excellent Canary wine is chiefly from Tenerif and Palma, which also yield considerable quantities of sugar; while Gomera is noted for silk; and the tree yielding the gum called dragon's blood is not uncommon.* They have most European domestic animals. The capital of the seven inhabited islands is the town of Palma, in the isle of Canary: but Tenerif is the most populous. The inhabitants are computed at 140,000; of whom 64,000 belong to Tenerif, in which isle the governor usually resides, though the royal audience, of which he is president, be established at the capital of Canary. There is considerable internal trade with Tenerif; and the wine is chiefly exported by the English. Filtering stones, from the isle of Canary, and from Fuerta Ventura, also form an article of traffic.

Madeira. The island of Madeira is chiefly remarkable for excellent wines, being about eighteen leagues in length by seven in breadth.† The capital, Funchal, the residence of the governor and bishop, is in a fertile vale, on the south side of the isle, a handsome town, with about eleven thousand inhabitants, there being about 64,000 in the whole island. The chief trade is with the English, who export about ten or twelve thousand pipes of wine annually; the remainder, about seven thousand, being consumed in the country. The richest merchants are English or Irish Catholics. The interior consists of high mountains, visible at the distance of twenty leagues. To the

* Ibid. 103. † Voyage de Verdun, i. 58.

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north east is the small isle of Porto Santo, only remarkable in the history of Portuguese discovery. It is however a fertile little isle, with a good harbour, sometimes visited by East India ships.*

* At the distance of about nine degrees, or 540 geographical miles, to the north-west are the Islands of AZORES, a brief description of which should have accompanied that of Portugal, as they properly belong to Europe, being about thirteen degrees from Cape St. Vincent in Portugal, while the African shore is more distant by at least one degree; and their latitude rather connects them with Europe than with Africa: not to mention that they were first peopled by Europeans, and that this portion of the globe is too small to abandon any appendage.

The chief isles of the Azores are St. Michel, Tercera, Pico or the Peak, and Fayal, with two smaller, far in the west, called Florez and Corvo. These isles were all discovered by the Portuguese before 1449, who gave them the name from the number of goshawks, which they observed here remarkably tame, there being neither man nor quadruped. In 1466 the Portuguese king gave them to his sister the Duchess of Burgundy. They were colonized by Flemings and Germans, among whom was Job de Hwerter, father-in-law of the celebrated geographer Martin Behaim, who resided in Fayal. The subsequent history is rather obscure; but the Flemish inhabitants seem to have always acknowledged the king of Portugal. A furious earthquake is said to have been felt here on the 9th of July, 1757. The Peak has a mountain of remarkable height, by some reported to equal that of Tenerif, and which might well be assumed as the first meridian of longitude, instead of the various and confused distinctions recently adopted. These isles are generally mountainous, and exposed to earthquakes, and violent winds; yet they produce wheat, wine, fruits, and abundance of woad. The chief is Tercera (whence they are sometimes styled Terceras) being fifteen leagues in circumference. The capital town is Angra, on the south-east side of Tercera, with a harbour defended by a fortress, in which resides the governor of the Azores. Angra is a bishopric with some handsome churches, particularly that of the Cordeliers; and there are two other monasteries and four nunneries.

One of the latest accounts of the Azores is that given by M. Adanson, who visited them on his return from Senegal, 1753. He says that the Peak is about half a league in perpendicular height; and that the isle produces excellent wine. The harbour of Fayal presents a beautiful amphitheatre clothed with trees: the town has 5000 inhabitants, but may be said to consist of convents: the governor is styled *Capitan mor*. The climate and soil are excellent, there being no occasion for fire in the winter. The trees are walnuts, chesnuts, white poplars and particularly the arbutus or strawberry tree, whence the name, for Fayal in the Portuguese implies a strawberry. Cattle, &c. abound: yet almost the only birds are a kind of blackbirds speckled with white. Fayal is rather mountainous, and there is a volcano near the centre, but the last eruption was 1672. It is to be regretted that these interesting isles, like all other Portuguese settlements, are almost unknown.

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DISCOVERIES, AND CONJECTURES,

CONCERNING

THE CENTRAL PARTS OF AFRICA.

HAVING completed this arduous circumnavigation of the globe, and arrived on the confines of Europe, whence the description first proceeded, one topic yet remains, which has considerably interested public curiosity. The interior parts of Africa present many geographical deficiencies, both in the northern and southern parts of that wide continent. The patronage of the African Society has already contributed greatly to the increase of our knowledge, not only by collecting recent oriental intelligence, but by exciting various travellers, particularly Mr. Park, to the accomplishment of this grand design; and though these laudable efforts have not been attended with all the effect that might have been wished, yet the precision of modern knowledge begins to dawn; and it is to be hoped that the travels of Mr. Hornemann will importantly tend to remove the remaining defects. The materials hitherto presented have been used with care by that celebrated geographer Major Rennell, whose succession of maps of the northern part of Africa, from 1790 to 1800, form of themselves curious specimens of the uncertainty of the subject, of the variations in the author's ideas, and of the progress of African Geography. Suffice it to observe, that in his map of 1790 Rennell marks the Nigir as passing by Tombuctoo to the west; while in D'Anville's map, 1749, and in his ancient geography, 1769, the Nigir is specially mentioned as running from the west to the east, and he dwells on the passage of Herodotus to that effect, which was afterwards illustrated by Rennell. But geography is often retrograde; and D'Anville's map, 1749, the aspect of which is chiefly derived from Ptolemy, was certainly a better delineation of central Africa than Rennell's in 1790, or even 1800. Several theories have been recently started by various writers, but the French geographer was a decided enemy to theory, which in geography is worse than ignorance itself; as it not only neglects the practical knowledge already acquired, but impedes the progress of discovery by a false semblance of science, not to mention the inconvenience, and sometimes fatal risk, that travellers may encounter in pursuit of this wild-fire. Such theories are often raised on mathematical evidence, built upon the sandy foundation of erroneous reports, hasty routes, and oriental inaccuracies. On such occasions mathematical calculations become as heterogeneous as in bishop Huet's Demonstra-

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tion; and the best arguments are those from plain deduction, arising from striking features, and probable circumstances. Hence it follows that the best and most exact geographers (where the materials are astronomical and precise) will, if they attempt to build theories, wander farthest from the truth.

The travels of Mr. Browne, merely to satisfy his own curiosity, and his fondness for oriental manners, have also contributed most essentially to our knowledge of northern Africa, not only by the geography of Darfur and Kordofan, but by ascertaining the origin and progress of the Bahr el Abiad, or real Nile; and by disclosing several circumstances towards the west, particularly a large river rising in the mountains of Kumri, and proceeding north-west, which seems to be the Gir of Ptolemy, and the Nile of the Negroes of Edrisi. It needs scarcely be added that as the source of the Nile, and the river running north-west are striking features of Ptolemy's map, there is reason to infer that his intelligence deserves in other respects great credit.

It is unnecessary to remind the reader that all the recent information assisted by that of Ptolemy, will only throw a faint light on the northern half of this wide continent, as far as the central ridge of Kong, continued in a north-west and south-east direction across to the mountains of Kumri, and those on the south of Abyssinia, perhaps extending to Ajan on the eastern shore. The interior of the southern half of this great continent will remain a theme equally interesting, and still more unknown. In proceeding first to give some idea of the discoveries and conjectures concerning the northern half, it will be proper to begin with ascertaining where the light of discovery terminates.

From the travels of Mr. Park, and the map constructed by Rennell, it appears that three great rivers, the Gambia, Senegal, and Joliba or Nigir, rise from a chain of lofty mountains, north latitude 11°; and as Browne lays down the mountains of Kumri, which give source to the Nile and Bahr Kulla, in north latitude 7°, it seems sufficiently evident that this grand chain proceeds across the continent, especially as it was observed by Mr. Park as far as he penetrated.

Park's route....Sego. This enterprizing and ingenious traveller* pursued the course of the Joliba from longitude 5° 50′ west of Greenwich to Silla, longitude 1° 30′ the utmost extent of his expedition. Not to mention curious and interesing information concerning the manners, and present state, of the countries through which he passed, we are indebted to Mr. Park for the Moorish kingdom of Ludamar, where he was detained at Benowm, and for another called Beeroo, the capital of which is Walet, while to the east is the celebrated kingdom of Tombuctoo. To the south of these are the negro kingdoms of Kaarta and Bambara, the capital of the last being Sego; beyond which, about seventy geographical miles to the north-east is Silla. The chief geographical objects in Mr. Park's route are the river Joliba, and the town of Sego. The

* The narrative of his journey was written by the late Bryan Edwards. See Sir William Young's Advertisement to the third volume of that ingenious author's History of the West Indies, 1801, 4to.

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word *Joliba* signifies the Great Water: and when this river was first described by our traveller, it was flowing slowly to the eastward, and glittering to the morning sun, with an expanse as broad as the Thames at Westminster.* He soon after arrived at Sego, the capital of Bambarra, which consists of four divisions, surrounded with high mud walls; two on the north side of the river, and two on the southern. The houses are in a square form, with flat roofs: they are of clay, some have two stories, many are white-washed. Several mosks also appear; yet the streets are narrow, wheel carriages being unknown. The inhabitants are computed at 30,000, but such calculations are usually exaggerated. The king resides on the southern shore; and people are ferried in canoes, consisting of two large hollowed trees joined at the ends. Around is a slender cultivation: and these mud walls and canoes are called African magnificence.

In Ludamar Mr. Park learned, from a sheref who arrived with salt and some other articles from Walet, the capital of Beeroo, that Houssa was the largest town he had seen, Walet being larger than Tombuctoo.† At Silla Mr. Park collected intelligence from the Moorish and Negro traders, who informed him that two days' journey to the east is the town of Jenne, situated on an islet in the river; beyond which, at the distance of two days, is the Dibbi or Dark lake, in crossing which from west to east the canoes are said to lose sight of land for an entire day.‡ From this lake the river issues in several streams, terminating in two large branches, which join at Kabra, one day's journey south of Tombuctoo, and the port of that city or town. At the distance of eleven days from Kabra, the river passes to the southward of Houssa, which is two days' journey distant from the Joliba. "Of the further progress of this great river and its final exit, all the natives with whom I conversed seem to be entirely ignorant||." To the eastward of Houssa is the kingdom of Kassina. The present king of Tombuctoo is named Abu Abrahima, and is said to be rich, his wives and concubines clothed in silk. The kingdom of Houssa is of superior consequence. To the south of the Nigir were mentioned the kingdoms, or rather districts of Gotto; to the west of which are Baëdoo and Maniana, the inhabitants of the last being reported cannibals. So far Mr. Park's intelligence in the west, which terminates with Houssa about east longitude from Greenwich 4°.

Browne's journey. On the eastern side Mr. Browne's intelligence extends to longitude 17°; so that there is a deficiency of thirteen degrees or 780 geographic miles; but this space unfortunately comprises the most interesting portion of northern Africa, and especially the termination of the Nigir: and to the north-west of Darfur the deficiency becomes more extensive. To the south of Cobbé, at the distance of twenty-three days, are noted copper mines; beyond which, at the distance of seven days and a half, is the Bahr el Abiad. Mr. Browne's map is unfortunately laid down with little care, and the river is placed too near the mines. To the west is the river of Kulla, the banks of which according to Mr. Browne's information abound

* P. 291, 8vo. † P. 219. ‡ 317. || P. 319.

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with pimento trees, and the ferry boats are partly managed by poles, partly by a double oar.* The trees are so vigorous, from the quantity of water and deep clay, that canoes are hollowed so large as to contain ten persons. The natives of Kulla are partly negroes, and partly of a red or copper colour; and the country is chiefly frequented by Jelaps or traders from Bergoo and Fur, in order to procure slaves, the most trivial offence being here punished by selling the person to foreign merchants. On the west of Bornou Mr. Browne heard of Afnou, which is a negro word for Soudan or Nigritia in general, but is particularized as a country abundant in silver: and there is a remote part of the pagan country, called Gnum-gnum, where the people eat their captives taken in war: but this can scarcely be the Maniana of Park, and it is probable that the mountaineers in the south retain, as usual, the most ancient and ferocious manners. Mr. Browne did not hear of Wangara; but Zamphara, not far from Bornou, was mentioned by his informers, commonly Jelabs or travelling merchants.

Thus far the rays of modern intelligence throw a faint light upon northern Africa; and beyond all is theory and conjecture. But amidst this uncertainty there are two sources of information which deserve preference, till more precise knowledge can be obtained. These are Ptolemy, who wrote in Egypt, before the negroes were envenomed with Mahometan fanaticism, and after the Roman arms had penetrated to the Nigir: and the Arabian authors, who by the progress of Mahometanism, had the best intelligence concerning this continent. Yet upon the whole Ptolemy's information and exactness will obtain a decided preference over the fabulous turn and gross inaccuracies of the Arabian geographers; and it has already been remarked that the recent discoveries, both in the east and west, tend to confirm Ptolemy's description; or rather the general aspect of the map constructed upon it by Agathademon.

Ptolemy. The most remarkable error, or inaccurary, in Ptolemy's map is that he certainly conceives the Nigir to rise in the mountain of Thala: or, what amounts to the same, he supposes that the river terminated in a lake in the west, which he calls Nigritis Palus; whence it was clearly the opinion of this great greographer that the Nigir ran from east to west, in which he seems to have been misled by confounding it with the Gir.† The last river he clearly deduces from mountains in the south-east so as to correspond with the Bahr Kulla, though he be a stranger to its remote source. This river is another grand feature of Ptolemy's description, which has escaped modern geographers, though D'Anville, 1749, had inserted it with his usual knowledge and industry. This river is represented by Ptolemy as receiving two tributary streams from two lakes: and among other cities on its banks is a metropolis called Gira; as upon the Nigir there

* Browne, p. 308.

† In his description of the Nigir he considers it as joining Mount Mandras, (at the bottom of which is the Nigritis) with mount Thala in the centre of Africa, and says nothing of its origin. By a striking singularity he describes all the rivers that join it as being deflections, or digressive streams, (ἐκτροπαὶ) from the Nigir.

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is another styled the Nigira. The termination of the Gir is not a little obscure, but it seems to be delineated as passing under a chain of hills, on the north of the Lybia Palus, or central lake of Africa, and afterwards joining the Nigir in its course to the west.* Other circumstances of Ptolemy's map will remain obscure till further discoveries. His Panagra, between the Gir and the Nigir, may be the Wangara of the Arabs; and his mountains of Caphas, Thala, and Aranga, seem to belong to the central ridge. To the south he inserts the names of numerous petty tribes, probably dispersed in the central mountains, for such little divisions are common in the mountains of Barbary, as appears from Shaw, and other travellers. To the south of these is the wide region of Agisymba, with the mountains of Xiphé and Berditas, and that of Meschi giving source to a river which runs south out of the bounds of Ptolemy's geography, but probably one of those that flow from the mountains of Kong into the gulf Guinea.

It has already been observed that this geographer has omitted the Zaara or Great Desert, and that the interior part of his map is laid down from land routs, while the western coast is from maritime expeditions. On the south his latitudes are equally erroneous, as he places the sources of the Nile, and the mountains of the moon, in south latitude 15°, instead of north latitude 6°, or 7°; an error of about twenty degrees or 1200 geographic miles! It seems evident that even his most southern mountains belong to the central ridge of Kumri; but that he had heard of Agisymba, which, according to D'Anville, in the Abyssinian language only signifies Southern Country: while, from the natives on the south of the Nigir, the Romans may have learned that some rivers ran from the mountains of Kong towards a southern sea.

The Arabs. Having thus briefly examined the leading points of Ptolemy's African geography, that of the Arabs will not be found deserving of equal attention The most celebrated is that of Edrisi, who wrote in Sicily in the twelfth century, but from his minute attention to eastern Africa, he was formerly styled the Nubian geographer. By some strange inadvertence the towns mentioned by this author, who wrote six centuries and a half ago, have been inserted in modern maps, while perhaps there is not one of them in existence. Setting this aside it will appear, from an accurate examination of Edrisi, that while his Nile of the Negroes, which he says runs to the west, has been mistaken for the Nigir, he really knew nothing of that river; and his Nile of the Negroes is the Gir of Ptolemy, terminating in an inland lake, in which was the island of Ulil, one day's sail from the mouth of the river; and in which island another Arabian geographer places the capital city of all Soudan. Beyond this lake and island Edrisi appears to have had no knowledge of central Africa; all the regions and towns he mentions seem to belong to the Gir, his Nile of the Negroes, running to the north west, and from his account it would

* Claudian, a native of Egypt, thus mentions the Gir:

Hesperidum Triton; et Gir notissimus amnis
Æthiopum, simili mentitus gurgite Nilum.
De laud. Stil. i. 251.

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appear that Wangara is the delta of the Gir. It is however to be hoped that Mr. Hornemann will soon adjust these uncertainties. Some have conceived that the river of Kulla, after proceeding some time to the north-west, flows south-west and joins the sea at Calabar: but this is improbable, for Mr. Browne repeatedly expressed his idea to the author that this river continued its course in its original direction; and it is not likely that it should pass the grand mountainous ridge, in its centre and highest part, nor that so great a stream, which would afford such a grand inland navigation, should have escaped travellers in Benin and Calabar; nor according to the best maps is there any estuary in these countries that can at all correspond to such a river. The most curious and important discoveries which remain are probably the river Gir and the lakes, marshes, or deserts, which receive that river and the Nigir; the latter being an object of great singularity, equally unknown in the time of Ptolemy and at the present day. Perhaps in a level plain these large rivers send off various branches, gradually lost in the sands; but Ptolemy and the Arabs indicate a great central lake, which could scarcely so long have escaped more precise notice, except we conceive that the northern part is surrounded with deserts, and the southern with lofty and inaccessible mountains, covered with forests and full of ferocious animals, so that the traders only passing the northern part, and isle of Ulil, are complete strangers to its southern extremity. But whether these conjectures shall be classed with the travels of Gaudentio di Lucca,* or be found considerably to approach the truth, must be left to future discovery.

As in Asia the chief obstacles to discovery have not been the sandy deserts of Cobi or Shamo, but the inaccessible mountains of Tibet, so in Africa it would appear that the impediments must arise from high mountains, and not from sandy deserts, such as are familiarly passed by caravans in every direction: it is also probable that these mountains are covered with thick forests, and the thorny underwood frequent in Africa, sometimes inhabited by aboriginal tribes of the greatest cruelty and ferocity, and at others swarming with lions, tigers, and panthers. It would have been most beneficial to the natives if, as in Asia and Europe, victorious armies had established wide empires; and, at the expense of temporary destruction, had secured lasting intercourse and general advantages.

Southern Africa. The continual wars between petty tribes seem also to conspire with a ridge of impassable mountains, called Lupata, or the Spine of the World, to prevent discoveries in the interior of southern Africa, where the map of D'Anville, half a century ago, presents every thing that is known with any degree of certainty at the present day.† By a singular fatality Africa, the least known of all the continents, has become the portion of the Portuguese, the most ignorant of all the European nations. In the hands even of the Rus-

* This singular work was published by Bishop Berkley, and pretends to disclose an interior country in Africa. The Bishop and his friends seemed to regard it as genuine, but the public has never concurred in that opinion.

† On the east of Congo are the mountains of Crystal, and those of the Sun, the latter being naked alpine precipices. See Pigafetta's Congo, &c.

sians considerable light would have been diffused, while the Portuguese darkness renders all surrounding objects as vague and obscure, as if they belonged to the twelfth century. Besides the chain of mountains pervading this part of Africa from North to South, or perhaps two chains at a considerable distance, supporting an upland terrace in the centre, whence there are no rivers of prodigious size as in South America, the chief feature yet known seems to be a lake of great extent, called Maravi, laid down by D'Anville as more than 350 British miles in length, but of inadequate breadth. This lake may perhaps, like that of Baikal, lie at the foot of the table-land on one side, as that of Aquilunda of far smaller extent does on the other. The rivers of Barbela in Congo, and Zambezi in Mocaranga, are also grand features; which seem to be delineated by D'Anville in his general map of Africa, and his particular maps of Congo, Angola, and Mocaranga, 1731, with as much care and precision as his Portuguese materials would admit. The navigation of the Zambezi is interrupted for about twenty leagues, by cataracts or violent rapids, about the distance of 140 leagues from the sea. To the north are, or were, the Mumbos, a race of cannibals, who with the Zimbas and Jagas, savages of equal cruelty, have desolated a great part of southern Africa.* Should the Portuguese retain their posessions, it is likely that the darkness may be the same in the year 2002, as it is in 1802, when it is little better that it was in 1602, some accounts having been then published by Lopez and Philip Pigafetta. It is to be regretted that in our strict alliance with Portugal we do not instigate that government to use some means to improve the geography of southern Africa; and La Cruz's map of South America should operate as a stimulus and example. It is probable that the country is as fertile in the precious metals as the other continent, and it is wholly unaccountable, and a truly singular destiny, that America should be filled with European colonies, while Africa is neglected. If the natives of the western continent were not spared, humanity would have little cause to regret the extirpation of the Mumbos and Jagas, and the consequent deliverance of the more gentle and civilized tribes from the unceasing destruction inflicted by these cannibals. Small colonies on the shores will effect nothing in such a country, and the wrongs of Africa can only be terminated by a powerful European colony, an enterprize worthy of any great European nation, a scene of new and vast ambition, and among the few warfares which would essentially contribute to the eventual interests of humanity, and raise a degraded continent to its due rank in the civilized world.

Meanwhile it is more consonant with the tenor and purpose of the present work to express an humbler wish, that spirited travellers would explore these regions, as the fame of science is superior to that of arms: and if we cannot diffuse civilization, and the blessings of stable and subordinate society, we may at least, by comparison, learn duly to prize their advantages.

* From Cavazzi's Account of Congo, Bologna, 1687, fol. it would seem that the Jagas are the Tatars of central Africa, chiefly consisting of wandering tribes who range from the south of Abyssinia to the confines of Congo west, and of Mocaranga east. It would also appear that between the ranges of mountains there are vast sandy deserts.

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NOTE,

CONCERNING THE ARTICLE AMERICA.

THE article America, in Mr. Pinkerton's excellent system of MODERN GEOGRAPHY, having been found, in many respects, extremely defective and erroneous, it was deemed proper by the editors of the Philadelphia edition, to endeavour to render that article more worthy of the public notice. I was induced to undertake the task, not sufficiently aware, at the time, of the difficulties with which it was attended.

In accomplishing this task, I have had different objects in view; to correct some of the errors into which the learned author has fallen; to supply some of his *desiderata;* and sometimes to temper the severity of his strictures.

I hope it will be found, that not a few of the errors in the original article have been corrected. In many instances, these errors relate to subjects of great moment in the view of America, and especially of the United States and other parts of North America: in others they are of minor consequence.

Not a few of the desiderata have been supplied, and some of them, I flatter myself, have been supplied in a very able manner: those I mean which have been communicated to me, viz. the articles, LAW, MANUFACTURES, and COMMERCE. For these articles I am indebted to the kindness of two gentlemen, whose talents and intimate acquaintance with the subjects which they treat, will readily be acknowledged. The article law was drawn up by Alexander J. Dallas, Esq. those relative to manufactures and commerce, by Tench Coxe, Esq.

For all the other additions, alterations, and corrections, I am myself responsible. Many of these additions, &c. have been introduced into the body of the page, whilst others are thrown into the form of notes. These last are marked with the initial of my name.

It may perhaps seem decorous to apologize to Mr. Pinkerton for the liberty which I have, in many instances, taken with his statements of

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facts, and with his speculative opinions upon a variety of subjects: my apology is briefly this; it was intended to render the work more correct and just; the task was confided in me, and, as an American, I had it more in my power than the learned author could have had, to procure authentic documents, or a more extensive body of facts. It was originally my intention to have introduced in the shape of notes, *all* the points of difference between Mr. Pinkerton and myself, but I found it necessary to relinquish this design, as the work would have been too much swelled with an expensive body of notes.

To the public it certainly becomes me to apologize for the errors into which I myself may have fallen, or for those in the original work which I have left uncorrected. The subjects on which I have treated are extremely numerous, and the difficulties attending their right discussion, by no means few. Every editor of such a work will fall into errors; all that perhaps can be expected is, that the new work will be more perfect than the original. I have not intentionally wounded the feelings of any portion of my countrymen, but I have been obliged to glance at some of the peculiarities of their character. This I have done with much less severity than Mr. Pinkerton has done.

BENJAMIN SMITH BARTON.

Philadelphia, April 7th, 1804.

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APPENDIX

TO

VOLUME SECOND.

EXTRACTS CONCERNING THE CHINESE WAR IN LITTLE BUCHARIA, 1755 to 1759.

From the Histoire Generale de la Chine, tome xi. Paris 1780, 4to. p. 550, &c. This work being rare and expensive, the following brief summary of that remarkable war, which so much enlarged the Chinese empire, may be acceptable; especially as it presents every circumstance which can illustrate the obscure geography of an interesting country. (See p. 288, 289.)

SINCE the accession of the present, or Mandshur dynasty, the chief wars of the Chinese have been with those Monguls called Kalkas, who dwell towards the rivers Kerlon and Tula. These tribes being at length subdued, and the family of the Kaldan or sovereign, extinguished or forgotten, a new vicinity, produced as usual, a new enmity, and the Chinese arms were directed more to the west. The throne of the Eluts was contested by Debatchi, (called by the Chinese Taoua-tsi,) and by another chief named Amoursana. The latter was forced to withdraw, and seek refuge in the Chinese court at Geho. The kings of the Eluts used to reside on the river Ili, where a city has since been built by the Chinese; and though chosen as a place of exile, was greatly increasing in population.

Kien-Long, the Chinese emperor, wished to avoid a distant and expensive war against the Kalmuks of Soongaria, also called Eluts by the Chinese, but being irritated by the disrespectful conduct of Debatchi, he undertook this war in opposition to the advice of all his councils. In the beginning of 1755 Amoursana preceeded at the head of a Chinese army against Debatchi, who was taken prisoner, and sent to the court of Pekin, where he soon after died. Amoursana was named king of the Eluts or Kalmuks under the protection of China; but, speedily revolting, he attacked the Chinese stations on the Ili, destroyed the forts and redoubts, and having slain the two Chinese generals Panti and Aiongan, he pitched his camp before Palikoun, one of the chief towns of the Eluts, which was strongly garrisoned by the Chinese. This town is probably the Bulugan of the Russian maps, about sixty miles north-west from the lake Barkol.

Other Chinese generals were equally unfortunate; but the garrison of Barkol was reinforced, and checked the progress of the enemy. This seems clearly to be the town of Barkol, or Ortic, on the east of the lake of Barkol. At length, in 1757, the emperor was fortunate in appointing

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a general of real skill, named Tchao-hoei, and the dissentions of the Kalmuks contributed to their destruction. The Chinese lieutenant-general, Fouté was also a man of distinguished courage and enterprize: and Amoursana was soon forced to retire into Siberia, where he died. Numbers of the Kalmuks took refuge among the Pourouts or Buruts, a part of the Kirguses; others among the Tanguts towards Tibet, and among the Torguts or more western Kalmuks. Kien-Long divided the country of the Eluts among several chieftains, who were bound to the court by homage and titles.

The country of Little Bucharia, styled by the Chinese Hoa-men, or Hoei-pou, that is, *the bord of Mahometans*, had been subject to the Kalmuks of Soongaria. During the course of the war, the Mahometan chiefs of Yerquen, or Yarcand, and Hashar, or Cashgar, (princes called by the Chinese the Greater and the Lesser Ho-tchom,) ungrateful for favours received from Kien-Long, had slain a Chinese officer and one hundred cavalry. The Chinese general, Tchao-hoei, advanced against the Ho-tchoms, who being defeated retired to Yerquen, which surrendered; and was speedily followed by Hashar. "Besides Hashar and Yerquen, they likewise became masters of seventeen other towns large and small, and of sixteen thousand villages or hamlets. In the district of Hashar were reckoned about sixty thousand families; without comprising those who had followed the rebels, and about twelve thousand five hundred people exiles in the country on the Ili. Hashar was little more than ten *li* (probably of two hundred and fifty to the degree) in circuit, and only contained two thousand five hundred families. To the east of Hashar were situated Onchei and Aksou. Between this last town and Hashar were three towns, Poïsonpat-hotchil, Poï-inké, Entorché; and two large villages, Peserguen and Arvouat, inhabited by about six thousand families. To the west of Hashar were the Buruts of Ertchi-yen, (probably Adjian;) and between the two, the towns of Pahaertouché, Opil, Tajamelik; and the villages of Saïram and Tokousak, which, however, were only computed at two thousand two hundred families. To the south of Hashar, before arriving at Yerquen, are situated two towns, Inkatsar-han, Kalik; and two hamlets, Tosohoun and Kavalkar: the four containing about four thousand four hundred families. Finally to the north of Hashar, are the Buruts, properly so called, to whose country one passes by the town of Arkoui, and the village of Horhan, which may contain nearly eight hundred families. 'On a general computation, the Mahometans depending on Hashar, were about sixteen thousand families, estimated at one hundred thousand heads, as is proved by the public registers."

There were fifteen degrees of magistracy, among which the chief was that of Akim or governor of the city, his lieutenant the Hichehan; the Hatsee, or judge of criminal affairs; and the Marab, or collector of the taxes. The letter of Tchao-hoei to the emperor, 13th September 1759, presents further particulars. Chinese garrisons were established even in small posts, as Opil, Tajamelik, Tchik, Entorché, and Païsoupath.

Meanwhile Fouté pursued the fugitive Ho-tchoms, or Mahometan chieftains, whom he defeated at Atchour, whence they fled towards Badakshan, and arrived at Poulok-kol. Fouté continued the pursuit to the great range of mountains (Belur-Tag;) and learnt from a native that the enemy had passed, and arrived near Badakshan, but had still a very high mountain to ascend, situated between two lakes, that on the side being called Poloun-kol, and that on the other side Ifil-kol. Beyond the former is a high mountain, whence Badakshan may be descried. Fouté pursued the Mahometans again, defeated them amidst the mountains, and summoned the governor of Badakshan to surrender the Mahometan princes. One had died in battle, but the head of the other was sent to Pekin; and the Chinese general retired satisfied with his success*.

* The reign of Kien-Long is here continued till 1780, but there is no hint of his having visited Badakshan, a reported but most improbable circumstance.

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POSITION OF THE CHIEF PLACES SUBJECT TO THE ELUTS OR KALMUKS; THE LONGITUDE COMPUTED FROM THE MERIDIAN OF PEKIN

(Ib. xi. 575.)

	Latitudes.		Longitudes.	
	Deg.	Min.	Deg.	Min.
Kou-tché,	41	37	33	32
Pou-kou-eulh,	41	44	32	7
Chaïar,	41	5	33	21
Cou-ko-pou-yn,	41	20	33	40
Aksou,	40	9	37	15
Salim,	41	41	34	40
Païï,	41	41	35	12
Ouchei,	49	6	38	27
Gaoché,	40	19	42	50
Pesch-karam, or Poche-kolmou,	39	20	42	10
Hashar,	39	25	42	25
Ingazar (Inkesal),	38	47	41	50
Tajamelik,	32	6	42	53
Yerquen,	38	19	40	10
Oulelek,	37	41	39	48
Chatou,	37	43	39	30
Harhalik,	37	41	39	15
Selekoueulh,	37	48	42	24
Koukiar,	37	7	39	2
Santchou,	36	58	37	47
Tououa,	36	52	37	7
Paltchouk,	39	15	39	35
Peichéniya,	36	26	35	55
Ilitchi,	37	—	35	52
Halahaché,	37	10	36	14
Yulongaché,	36	52	37	37
Tchila,	36	47	34	42
Také,	36	13	33	45
Kelia,	37	—	33	33
Antchiyen,	41	28	44	35
Isitalchan,	41	48	45	6
Marhalan,	41	24	45	10
Namkan,	41	38	45	40
Haohan,	41	23	45	56
Altoubeï,	41	53	48	10
Tachekan,	43	3	47	33
Badakchan,	36	23	43	50
Chekonan,	46	47	44	46
Gaclochan,	36	49	45	26
Ouahan,	38	—	45	9
Poloenlh,	37	—	43	38
Matchoute,	37	11	42	32

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CATALOGUE OF MAPS,

AND

OF BOOKS OF VOYAGES AND TRAVELS.

In the maps the letter L denotes the large, M the middle, S the small as explained in the preface. A complete catalogue of books of Voyages and Travels might fill two octavo volumes; but here only a few of the most useful and interesting are enumerated, especially the more modern*.

GLOBES.

BY Adams, Cary, Bardin. The last, from drawings by Mr. Arrowsmith, with the newest discoveries, are deservedly esteemed; and the celestial globes are also executed with great care and precision. In Cary's celestial globe, 1798, the constellations are only marked by bounding tints, and the eye is not distracted with the ridiculous figures of animals, &c. Some astronomers, however, and they are the best judges, prefer the ancient figures, on account of speedy and accurate reference†.

PLANISPHERE.

By Arrowsmith, 4 Sheets, 1794, &c. excellent. His pamphlet called "A Companion to a Map of the World," explains the projection, and contains some valuable information. There are planispheres published at Vienna, &c. stereographically projected for the horizon of the place of publication‡.

Smaller Planispheres by Faden, Harrison, &c. Northern and South-

* The most commodious form of arranging maps in a library seems to be that lately adopted, of pasting them on canvas, and putting them into a case which stands erect like a quarto volume, there being six folds in the sheet of large atlas paper. The volumes being titled on the back, and each map or part labelled, it may be consulted with ease, without the trouble of a large bound atlas, or the confusion of detached sheets.

† In general geography Varenius may still be consulted, with the first and only volume of Macfait, Edin 1789, 8vo. There is a *Catalogue Raisonnée des Cartes* by Julien, 1774, 2 tomes 8vo. now rather antiquated: he was also, it is believed, the vender of Homann's maps.

‡ Boullanger's map of the world, 1760, is on the horizon of a point of forty-five degrees of the height of the pole towards the north In 1774 Father de Gy published one similar, projected on the horizon of Paris. These maps present, under one point of view, the four parts of the world, which, as Fleurieu says, nature has assembled under the same hemisphere.

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ern hemispheres, Faden, 1 sh. each, 1802.

ON MERCATOR'S PROJECTION.

Of this Mercator was not however the author, as it was used long before his time. The best on this projection is that by Arrowsmith, &c. 8 sh. That of Faden 1 sh.

EUROPE.

Maps. L. By De Bouge, Vienna, 1799, 50 half sh. middling. By Sotzmann, in 16 sh.

M. By D'Anville, 6 sh. 1754. Arrowsmith, 4 sh. 1798.

S. Faden, &c. 1 sh. 1791.

Books. The Geography of Busching in German, or the French translation, 1785, 14 vols. 8vo. a prolix work, but containing excellent materials. Supplemental to Busching's Europe are the America of Ebeling, 1797, and the Africa of Bruns, 1799; the former tedious, the last good. Asia was begun by Borheck 1793, but seems incomplete. In the French abstract of Busching by Berenger, Lausanne, 1776, &c. 12 vols. 8vo. tolerable accounts of the other regions are added, but the want of references renders them unsatisfactory.*

ENGLAND.

L. The surveys of the several counties, particularly Surry and Sussex, by Lindley and Gardner, which are trigonometrical. Some of the best surveys are published by Faden.

The grand trigonometrical survey of England will speedily appear before the public, in part of Essex; (the map of Kent being a specimen of the plates, but not of the plan.) It is reported to excel in accuracy, abundance of positions, clearness and beauty. The whole sheets are filled to the edges; and when finished, will compose one uniform map, like Cassini's map of France.

M. Smith's Atlas. Cary's Atlas of the counties. Cary's England and Wales, 81 4to. sh. La Rochett's map, 12 sh. Andrew's 6 sh.

S. Kitchin's map, 4 sh. Faden, &c. 1 sh. 1800.

The maps in Saxton's Atlas, and Speed's Theatre, may be consulted for the sake of curiosity.

Camden's Britannia. Aikin's England Delineated. Pennant's Tours. Campbell's Political Survey, a tedious, but useful work. Arthur Young's Tours. Voyage de St. Fond, &c.

WALES.

The maps by Evans, 9 sh. Reduced 1 sh. (North Wales). Of South Wales there is an old bad map by Bowen, 6 sh. Pennant's Tours, Evans's Cambrian Itinerary, Aikin's Journey, &c.

* Exclusive of the old systems of geography by Moll, &c. there are in English Bowen's 1747, 2 vols. fol. maps; Middleton's 1777, 2 vols. fol. maps: but the best of the kind is that by Fenning, or rather Collyer, who informs us that Fenning only wrote the astronomical introduction. The fourth edition is 1773, 2 vols. fol. with maps by Kitchin. It is, like the others, a decent compilation of the more amusing parts of geography, but it is totally deficient in discussion or information strictly geographical. Vol. I. contains Asia and Africa. Vol. II. Europe and America. It is unnecessary to mention the successive *grammars*, as they are absurdly called, of Gordon, Salmon, and Guthrie. Many mistakes of the latter may be traced in Collyer, neither of them being versed in geography as a science.

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SCOTLAND.

L. The surveys of various counties.

M. Ainslie's map, 9 sh. Dorret's map, 1750, 4 sh. several mistakes.

S. General Roy's map, very scarce. Pennant's, &c. Ainslie's reduced. All 1 sh.

Statistical Account, 21 vols. 8vo. Camden's Britannia, by Gough. Pennant's Tours. Scotland Delineated. Voyage de St. Fond, &c. Volkmann's Travels in Scotland and Ireland, Leipsick, 1784, 8vo.

IRELAND.

L. Surveys of some counties.

M.

S. By Dr. Beaufort, 1792, 2d edit. 1797, 2 sh. Dr. Beaufort's map reduced, 1 sh. Faden. Taylor's, 1793, 1 sh. Faden.

Young's Tour, 2 vols. 8vo. excellent. Camden's Britannia, &c.

FRANCE.

L. Cassini's 183 sh. begun in 1744, seventy sheets were executed before 1767; and the whole was not completed till very lately (about 1794.) Atlas National, 85 sh. neat, the mountains being etched, so that the shade does not injure the lettering.

M. The smaller Atlas National. Several sheets reduced from Cassini, Faden, &c.

S. On the scale of D'Anville's Ancient Gaul, 1780, 1 sh. Faden's &c. 1792, 1 sh. Index sheet to the large map of Cassini. In departments by Belleyme, 4 sh. *France Physique*, or a map of France, shewing the mountains, rivers, &c. by Buache, 1 sh.

Voyage dans les Departments, a declamatory work, full of the new philosophy and sentimental hypocrisy. Description General, Paris, 1781, fol. Voyage Pittoresque, Paris, 1784, fol. Arthur Young's Tour, solid and excellent, Moore's View of Society in France. La Croix Geographie.

NETHERLANDS.

L. By Ferraris, 25 large sh.

M. Atlas des Departments Belgiques. By Schrembl, from Ferraris, 4 sh. Frontiers of Holland from Ferraris, Faden, 1 sh.

S. By Crome, 1 sh. Reduced from Ferraris, by Faden, 1 sh. 1789.

Marshall's Journey, &c.

RUSSIA IN EUROPE.

L. Maps of the several governments, but these are in the Russian character, and unfit for general use. The same, recent, 9 sh. Some governments by Tresscott, &c. in Latin.

Dezanchi's map of the Krimea. The Krim, by Kinsbergen, 4 sh. Van Kulen's Chart of Spitzbergen, 2 sh. &c.

M.

S. Russian Empire, 3 sh. Petersburg, 1789. By Tresscott and Smidt, 1776, 3 sh. Post map to Tobolsk, 2 sh. Reduced map, 1 sh. London. Kyrelof's map, 1734, 2 sh. curious.

Tooke's View of the Russian Empire, 1799, 3 vols. 8vo. Tooke's Russia, 1781, 4 vols. 8vo. Voyage de Pallas, Paris, 8 vols. 8vo. Histoire des Decouvertes, &c. Lausanne, 1784, 6 vols. 8vo. Giorgi's (pr. Ghiorghi,) Description of all the nations in the Russian Empire, Petersburg, 1776 to 1780, 4 vols.

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4to. in German or in French. Coxe's Travels, &c.

Austrian Dominions.

L. There are large provincial maps of most of the Austrian dominions, and the most modern are generally the best; among the others may be mentioned, Atlas of Tyrol, 21 sh. Atlas of Bohemia, by Muller, 25 sh. Military Atlas, 20 sh. Moravia, by Venuto, 2 sh. Gallitz and Lodomer, by Lieskany, 42 small sh. Hungary, by Artaria and Company, 4 sh. by Schrembl, 4 sh. better. Transylvania, by Schrembl, 2 sh. Sclavonia, &c. by the same, 2 sh. Venetian territory (in Dalbe). Atlas of Gallitz and Lodomer, with the Bukovin, by Maire, 12 sh.

M. Austria by the Artarian Company, Vienna, 1800, 1 large sh. Bohemia, by Schmettau, 4 sh. Venice, &c. by Santini, Chauchard's Germany. Oblong Atlas, by Kempen, too minute and crowded. Western Gallitz, by Lichtenstern, 1 sh.

S. Austrian dominions, 1 sh. by Baron Lichtenstern, 1795; this map embraces the Netherlands. Hungary, by Windisch, 1 sh.; the same in Townsend's Journey, 1 sh. Muller's Bohemia, reduced, 1 sh. Bannat, 1 sh. Old maps of the Venetian territory, by Nolin, 2 sh. by De Witt, Homann, Sanson, Jaillot, 3 sh. antiquated; the last mentioned is the best.

Townson's Travels in Hungary. Riesbeck's Travels. Wraxall's Memoirs, Born's Travels in Hungary and Transylvania, and those in the Bannat. Beaumont's Rhetian Alps. Dalmatia, by Fortis.

Prussian States.

L. Poland and Prussia, by Zannoni 25 sh. Atlas by Sotzmann, 21 sh. All the provinces published separately. Atlas of Silesia, by Meyer, 20 sh.

M. Sotzmann's 16 4to sh.

S. Prussian dominions, a French map reduced from Sotzmann, 2 sh. Reduced by Sotzmann, 1 sh. 1800.

Marshall's Travels. Coxe. Riesbeck. Wraxall, &c.

Spain.

L. The geography of this country is imperfect; the best Atlas is that of Lopez, but it is poorly and inaccurately executed. The coasts have been drawn by Tofino, the royal astronomer, with great care, and published at Madrid 1798. As Lopez remains the chief authority for the interior, a brief view of his work may be proper.

Atlas Geografico de Espana, compuesto por Don Tomás Lopez y Vargas, Geografo por S. M. de Sus Reales Dominos, de la real Academia de S. Fernando, de la real Sociedad Bascongada, &c. Madrid, 1792. Imperial 4to. Map 1. Ancient Spain. 2. Modern Spain, single sh. 1788; longitude from the Peak of Tenerif. He accuses the foreign maps of errors in the division of the governments, and the course of mountains and rivers. 3. The Pyrenees, from Sanson. 4. Modern Spain, 4 sh. by Lopez, 1792. 5. Province of Madrid. 6. Ditto of Toledo. 7. Archbishopric of Toledo, 4 sh. Then about 36 provincial maps, with Majorca, Minorca, Iviça, or Iviza. States of Barbary. The harbours of Tripoli and Tunis. The bay of Algiers, with the attacks of 1783 and 1784. Plans of other African harbours. The Islands Azores. The Canary Islands. Particular maps of the Canary Islands. Chart of the gulf of Mexico, and of the West Indies. Cuba. Hispaniola. Porto Rico. The Lesser Antilles, or Caribbee Islands,

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The Islands Lucayos. The environs of Mexico. Tierra Fermé. Province of Carthagena. Other American provinces. Plan of Quito. Marianne Islands, by Lopez, 1784. In Spanish maps the north is marked by a castle, the badge of Castille.—Minorca, 2 sh. by de la Rochette. 1780.

M. Spain by Mentelle and Chanlaire, Paris 1799, 9 sh. well engraved.

S. By Lopez, 4 sh. By the same, 1 sh. Faden, 1 sh.

Townsend's Travels. Bourgoing. Baretti. Link, &c. Those of Dillon are chiefly translated from Bowles's Spanish work on the natural history of the country. Ponz, Viage de Espana, 8 vols. 8vo. Madrid, 1776*. Swinburn's Travels, 4to. Fischer's Travels, 1801, 2 vols. 8vo. Fr. tr.

Turkey in Europe.

L. Geography very imperfect. Moldavia, by Bawr, 6 sh. Moldavia, &c. 1788, 2 sh. Danube, by Mansfeld, 7 small sh. The same, by Marsigli. Bulgaria, by Schenk. Bessarbia, &c. by Gussefeld. Greece by D'Anville; and the Atlas to the Travels of Anacharsis. The Propontis, by Zemenic; by Chevalier, 2 sh. and the two straits published by Faden, 1786, (by La Rochette.)

M. Wallachia, by Ruhedorf, 1788, 1 sh. curious.

S. Turkey in Europe, by Arrowsmith, 2 sh. Faden's Map, 1 sh. Greece, by La Rochette, 1 sh.

The Travels in Greece and the Levant are innumerable. Among the best are Wheeler, Chandler, and Tournefort, with the Voyage Pittoresque, and Stewart's Antiquities of Athens. D'Ohsson Tableau de l'Empire Otoman, 2 tomes fol. The last by Olivier, 1802, is only another Voyage to the Levant. Yet the northern and western parts of Turkey in Europe have been rarely visited. Boscovich Viaggio, de Costantinopoli in Polonia, con una sua relazione della rovine di Troja, Bassano, 1784, 8vo.

Holland.

L. There are provincial maps of all the provinces, but the new survey will be preferable. Wiebeking's Holland and Utrecht, 1796, 8 sh. North Holland, 16 sh. Reduced 4 sh.

M. The United Provinces, by Zepp, a good clear map.

S. The Seven United Provinces, with the land of Drent, and Generality lands, 1794, by Faden, 1 sh. Mr. Faden's maps are, in general, highly to be praised for accuracy and neatness.

Ray's Travels. Those of Marshall and Mrs. Radcliffe, &c. Febure Itineraire, 1784, 2 tomes, 12mo. Pilati, 1780, 2 tomes, 12mo.

Denmark.

L. Most of the provinces are completed under the direction of Bygge the astronomer, and some good maps of the shores, &c. have been published by Lowenorn.

M. The isle of Zealand, &c. by Wessel, 1777, 1 sh.

S. Denmark Proper, (by E. P.) Copenhagen, 1763, 1 sh. miserably engraved. Norway, by C. J. Pontoppidan, 1785, 3 sh. good, and decently engraved. The same in Baron Hermelin's reduced map. Iceland, by Erichsen and Olavius,

* There are many other large descriptions of Spain, as the Atlante Espanol, 14 vols. 8vo. There are also Universal Geographical dictionaries by Alzedo and by Pere; the last 3 vols. 4to.

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1780, 1 sh. but the projection is erroneous, the length being one third too great: See the Voyage of La Crenne, Paris, 1778, and the Journal of Zach, vol. vi. The Ferroe Isles of Lowenorn. Norway and Sweden, 1 sh. Faden. The same, Pontoppidan, 1 sh. There are several maps of Denmark, Sweden, Norway, and Iceland, all comprised in 1 sh.

Marshall's travels. Coxe, &c. Von Troil's Iceland. The map is carelessly drawn, and among other omissions are the names of the rivers: In p. 5, there must be some gross error in distance. Voyage to Norway, by Fabricius, 1779, in German.

Sweden.

L. Baron Hermelin's Atlas of the Provinces, Stockholm, 1797, is excellent, and adorned with interesting prospects in Lapland, &c.

M.

S. Hermelin's reduced map. Faden's by La Rochette, 1794.

Travels of Maupertius, Coxe, Marshall, Wraxall, &c.

Portugal.

L. The geography is perhaps, worse than that of Spain; and Link has pointed out many gross errors in the maps of Lopez, &c. A new survey is in progress.

M. By Lopez, in 8 sh. bad. By Jeffreys, improved by Gen. Rainsford, 6 sh. new edit. 1790.

S. The chorographical map, by de la Rochette, published by Faden, 1797, 1 sh. perhaps the best yet executed. Compare it with that by Lodge after Zannoni. For a gross error of Lopez, see Link, p. 257.

Link's travels, 1801, 8vo. the best account yet given of the country. Murphy, Southey, &c. Lima's Geography of Portugal, 1736. Description of Portugal, Lisbon, 1785, with an account of Portuguese saints*.

Swisserland.

L. The Atlas, by Weiss, geographical engineer, Strasburg, an 8, 1800. &c. excellent.

M. The old map by Scheuchzer, 4 sh.

S. The reduced map by Weiss, 1 sh. excellent. By Mechel, 1799, 1 sh. good. That in Coxe's travels is of little value, from the great superiosity of these two.

Coxe's travels, the best of all the modern series. Bourrit, Description des Glaciers. The celebrated travels of Saussure to the Alps chiefly relate to the French and Italian chains.

German States.

L. There are large maps of most of the electorates. *Saxony*, The military Atlas, &c. and the maps of the districts. *Brunswick-Lunenburg*, or *Hanover:* many maps of the districts. Mecklenburg

* The Azores properly belong to Europe, and should be included in maps of that quarter. The description should have followed that of Portugal, the nearest land and to which they belong. The most recent account is that of Adanson, in his Voyage to Senegal, 1750, 8vo. There is a detached map by Lopez; and another by Simpson, published by Laurie and Whittle. One by Tofino, 1 sh. excellent. By Beilin, 1 sh. 1755.

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Schwerin, 16 sh. Strelitz, 9 sh. Duchy of Berg, 4 sh. On the *South of the Mayn*, there is an Atlas of Bavaria by Riedl; and an Atlas of Suabia, (including of course the Duchy of Wurtemburg) in 30 sh. The Duchy of Wurtemburg by Vischer, 1 sh. Of all the other states there are also topographical maps*.

M. Chauchard's map of Germany (9 sh. the supplement may well be omitted,) has a deserved reputation; but it is to be regretted that he has not specified the mountains and hills. Maps of Germany, north and south of the Mayn, are wanted on a large scale. The electorates, &c. may be had in single sheets. Wiebeking's Lower Rhine, or frontier between France and Germany, 10 sh†.

S. A map of Germany in 4 sh. by Covens, bad. By Zannoni, middling. By Klein, in some estimation. Germany, 4 sh. by de la Rochette. Dominions of the king of Great Britain in Germany, 1 sh. Faden, 1789. Germany, from the map by the royal academy at Berlin, Faden, 1788, 1 sh. The German rivers, 4 sh. The same 1 sh.

Riesbeck's travels, the best general journey through Germany. Nugent's in Mecklenburg, dull. The travels on the Rhine, by Mrs. Radcliffe, Cogan, Gardnor, &c. Travels in Germany are either too local, or embrace France and Italy, as Keysler, &c. In German are those of Nicolai, 8 vols. Leske in Lusatia. The Hartz by Lasius; or the *iter* of Ritter, 1740, 4to. On the south of the Mayn, Bianconi's Bavaria, and the German works of Hacquet and Gerken.

Italy.

L. The maps of the various states divided into provinces, &c. States of the king of Sardinia by Borgognio, 25 sh. copied by Faden, 1765, 12 sh. Ligurian republic, 3 sh. Republic of Genoa by Chaffrion, copied by Faden, 1783, 8 sh. An excellent large new map of Naples, by Zannoni, is in progress.

M. Each of the states on one sheet. Naples, by Zannoni, 1769, 4 sh. Sicily, by Schmettau, 4 sh. good and scarce. Dominions of the church, by Maire and Boscovich, 3 sh. Lombardy, &c. by Zannoni, 4 sh. very rare. Cisalpine Republic, by Delamarche, 2 sh. Malta and Gozo by Palmeus; copied by Faden, 1799. 2 sh. &c. King of Sardinia's dominions, by Caroly, 4 sh. (For Venice, &c. see Austria.)

S. Italy by D'Anville, 2 sh. excellent. The same improved by de la Rochette, and published by Faden, 1800, 4 sh.

The travels in Italy are very numerous. Among the best may be mentioned Cochin, 3 vols. 8vo. Paris, 1773, useful for artists. Lalande, 9 vols, 8vo. with an Atlas, Paris, 1786, a good general compilation‡. Martyn, London, 1791, 8vo. the best short guide. Moore's View of Society and Manners in Italy. Dr. Smith's travels, 1793, 3 vols. Young's travels in France,

* The maps of Homann are now of no use except for German provinces. Homann of Nuremburg died in 1724; but his heirs and successors continued to publish maps under that name for forty or fifty years, and among the latter there are some of German provinces executed by able hands. See a memoir concerning Homann in the Geograph. Ephem. Nov. 1801, p. 464. There are some good recent maps of German provinces by Mannert of Nurenburg. Jaeger's Germany, 81 sh. coarse. Hanover Post map, 4 sh.

† Wiebeking's maps of the Rhine, 1796, are very complete.

‡ The Description Historique of Richard, 6 vols. 8vo. is preferred to Lalande.

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for the north of Italy. To which may be added the travels of Ferber, Spallanzani, and Tozetti, &c. and the *Diarium Italicum* of Montfaucon. Swinburn's travels in the Two Sicilies.

Asia.

By D'Anville, 6 sh. still a valuable map for consultation and comparison. By Arrowsmith, 1801, 4 sh. the best extant.

Turkey in Asia.

By Hazius, Vaugondy, &c. 1 sh. The Euphrates and Tigris, by D'Anville. Palestine, by the same.*

The travels of Sandys, Wheeler, Chandler, Chevalier, &c. Maundrell's Journey to Jerusalem. Russel's Aleppo, &c. Mariti's Cyprus.

Asiatic Russia.

The maps of the governments are of little use, being in the Russian character. Those of the Russian empire have been already mentioned. There are Latin maps of some of the governments by Tresscott and others. The two Latin maps of the river Irtish, by Islenieff, are curious and important; as is Mr. Ellis's map and memoir of the country, between the Caspian and the Euxine, 1788.

Voyage de Pallas, Giorgi, &c. These interesting travels are abridged in the Histoire des Decouvertes Russes, Berne, 6 vols. 8vo. Patrin Voyage au Mont Altai, 1781, 12mo. Muller, Histoire du fleuve Amur, 1766, 12mo. Bell's travels, &c.

Chinese Empire.

Atlas by D'Anville, which ought to accompany the work of Du Halde. There are 42 maps of various sizes, of which 16 contain China Proper and its provinces, actually surveyed, in the course of many years, by the Jesuits, and probably with as much accuracy as the methods and instruments then used would admit. Eastern Tatary, or more properly the country of the Mandshurs and Monguls, has also some claims to accuracy, as the Jesuits attended the emperor on frequent journies into these provinces; but to the west of the river Etziné little dependance can be placed; and the delineations of Little Bucharia and Tibet, are certainly grossly inaccurate.

Tatary by Witsen, 1687, 6 sh. curious, must not be confounded with that by De Witt, 1 sh. By Strahlenberg, 1737, curious.

The best small map of China is that of D'Anville, 1 sh. This country is also well delineated in his Asia, and in that of Arrowsmith. Part of the empire is illustrated in the maps of Islenieff, and the Russian maps of the boundaries. See also the maps in Grosier's account of China, but particularly those in the Histoire Generale de la Chine.

Nieuhoff's Voyage, excellent. Du Halde's China. Ozbeck's Voyage. Gaubil's Genghiz Khan, Paris, 1739, 4to. for the Chinese geography of Mongolia. The Memoires Chinoises by Amyot, Paris, 15 vols. 4to chiefly relate to the manners, sciences, and history of the country: but the Histoire Generale de la Chine, 12 vols. 4to. is an interesting work, and a singular

* In general the best maps of Asia, America, and Africa, may be consulted for each country.

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monument of French science. Add the excellent travels of Bell, 2 vols. 4to. or 8vo. and particularly Sir George Staunton's account of the embassy to China, and Van Braam's travels.

JAPAN.

There is no good large map, those of Kæmpfer only displaying part of the coasts along which he travelled, while his general map is small. D'Anville has made some improvements, and there is a map in 1 sh. by Robert*.

Kæmpfer's Japan, and Thunberg's travels, both excellent.

BIRMAN EMPIRE, &c.

The maps in Mr. Syme's Journey. The geography of Exterior India is very imperfect, but expected to be improved by the researches of Mr. Dalrymple. For Siam D'Anville's map of Asia may be consulted; and for the outline of the coasts the charts of D'Aprés, which are deservedly esteemed.

Loubere's Siam. Turpin, Histoire de Siam, Paris, 1771, 2 vols. Richard, Histoire de Tonquin, Paris, 1778, 2 vols. 8vo.

HINDOSTAN.

Rennell's map, 4 sh. De la Rochette's, 1 sh. good, 3d edit. 1800. Rennell's Atlas of Bengal. His map of the southern part, dated 5th April 1800. D'Anville's Hindostan is antiquated and full of mistakes. Peninsula of India, Faden, 1795, 2 sh.

Hamilton's New Account of the East Indies. Voyage de Bernier, excellent, though old. Bartholomeo (Wesdin's) Voyage, excellent for the southern parts, Hodge's travels. Voyage de Sonnerat, 2 vols. 4to. The account by Tieffenthaler, in Bernoulli's collection, is a dull and tedious chorography. Knox's Ceylon, &c.

PERSIA.

There is no large map of this interesting country. That of de Lisle†, in 1 sh. may be compared with the Asia of D'Anville or Arrowsmith. The materials are vague and imperfect; and there can be little dependence on the longitudes or latitudes even of the best oriental geographers. The recent map by Wahl is illegible; but deserves to be re-engraved in a superior manner, and on a larger scale. That of la Rochette, to illustrate the marches of Alexander, is very beautiful, and drawn up with considerable care. Georgia and Armenia, 4 sh. 1780.

Voyage de Chardin, 4 vols. 4to. Thevenot's travels, bad. Tavernier, good. Le Brun, bad, and the plates seem to be frequently fabrications, as usual in the Dutch books of travels‡. Hanway's travels are good,

* Messrs. Roberts, the father and son, were geographers of considerable reputation, particularly Robert, styled de Vaugondy.

† There is one by Homann of Nuremburg, but that manufacture is in little esteem. In the *Voyage* of Niebuhr there is an interesting map of the vicinity of Persepolis.

‡ These published by Vander Aar are particularly obnoxious; the prints, as well in Mandelslo 1719 or 1727, being often transferred from old books; nay, sometimes the same view will serve for a great number of places, whether they stand on rocks or plains.

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though prolix. The journey of Franklin instructive and amusing for the southern part, while the northern is well illustrated by Gmelin. After Olivier's first volume, little can be expected from his second. Otter's journey, 1742, ranks among the best, but he is too full of quotations from the oriental geographers. Della Valle esteemed. The journey of Olearius, or of the Envoys from Holstein.

Arabia.

Maps of several provinces occur in Niebuhr's description; and it is to be regretted that he did not publish an entire new map. There is an old map by Vander Aar; but the best are those in the Asia of D'Anville and Arrowsmith, the former is published apart by Laurie and Whittle, as are likewise Persia, and Turkey in Asia.

Niebuhr, Voyage en Arabie, 2 tomes, 4to. and his Description de l'Arabie, 1 tome, 4to. To which may be added, la Roque Voyage en Arabie Heureuse, and the Voyage dans la Palestine, Paris, 1717, 8vo. which contains Abulfeda's Description of Arabia.

Asiatic Islands.

Chart by Arrowsmith, 4 sh. excellent. D'Anville's Asia. Map of Sumatra, in Marsden. Of Java, in Stavorinus. The Philippines, D'Anville or Arrowsmith's Asia. Of the interior of Borneo, Celebez, &c. is little known.

Marsden's account of Sumatra Forest's Voyage to Papua. Voyages of Stavorinus, &c. Valentyn's account of the Dutch possessions in the East Indies, published about 1728, consists of five large folio volumes, with upwards of a thousand copper plates, and is extremely rare, even in Holland. Sonnerat Voyage de la Nouvelle Guinée, 4to.

Australasia.

New Holland, &c. in Arrowsmith's chart of the Pacific. 9 sh. The same reduced, 1 sh.

De Brosses Histoire des Navigations aux Terres Australes, Paris, 1756, 2 vols. 4to. excellent. Dalrymple's collection of Voyages in the Pacific, 2 thin vols. 4to. and Supplement, curious and interesting. La Borde Hist. de la Mer de Sud, Paris, 1791, 3 vols. 8vo. Cook's Voyages. Governor Phillips. Collin's History of the colony, 4to. &c.

Polynesia.

Arrowsmith's chart of the Pacific. Maps in De Brosses; and of Otaheite and Tongataboo in the Missionary Voyage. Islands of Navigators, in that of La Perouse, &c.

Cook's voyages. Captain Bligh's. Those of La Perouse. The Missionary voyage. Gobein's account of the Ladrones. Description of the Caroline islands in the supplement to Des Brosses, &c.

AMERICA.

North and South by D'Anville, 5 sh. 1746, 1743, or by Green, 1753, for the progress of the geography. But there is no recent general map of this continent, which can be recommended. That of Delisle, 1739, 1 sh. curious, and exact for the time. By La Rochette, 1797, 1 sh.

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Morse's American Geography, 4to. or 8vo.

North America.

Arrowsmith's map with improvements and additions to 1802, about 5 feet by 4, excellent. It is to be regretted that the Spanish dominions in North America are not included. For these recourse must be had to D'Anville, or to the map of the West Indies by Jeffreys, 16 sh.

United States.

L. There are maps of most of the provinces, and a general Atlas published at Philadelphia, but in little esteem.

M. Arrowsmith's map, with corrections to 1802, 4 sh.

S. Single sheet, common. The provinces in Mr. Morse's work.

Morse's Geography. The travels of Kalm, Burnaby, Weld, Rochefoucault, Brisson, &c.

Spanish Dominions in North America.

A great deficiency in the geography, as the Spaniards are peculiarly jealous of these rich settlements, their chief tenure on the new continent. The Mexican dominions in general seem delineated with considerable accurary in the map of the West Indies by Jeffreys, 16 sh. corrected and improved to 1792; and the same reduced, 2 sh. or Bolton's map in Postlethwayte's Dictionary of Commerce. There are maps of some provinces by Lopez. Others by Sanson of Old and New Mexico, &c. California, by Costanzo, 2 sh. 1771. New Spain, by Alzate, in Spanish, 1 sh. The environs of Mexico may be found in Careri, from a drawing by Boot, an engineer employed to drain the lake. Another in Clavigero. The bay of Honduras and environs are published apart by Faden. A new map of the Spanish dominions in North America, excluding the West Indies, is greatly wanted.

Recourse must be had to old writers, the best being Gage, 2d edit. 1655, fol. or the French translation, Amst. 1721, 2 vols. 12mo. The 6th or last vol. of Gemelli Careri contains New Spain. This work is now acknowledged by the best judges to be genuine, and a voyage round the world has ceased to attract much observation, as there would be little difficulty in passing to China, and thence to America and Europe. There seems no doubt that Careri performed this circuit: the fault is that the book is rather a diary of trifles, than a work of solid information. There is a Spanish history of Cinaloa by Perez de Roxas. For Louisiana, said to be ceded by Spain to France, the works of Du Pratz, Charlevoix, &c. may be consulted. The voyages of Pagès round the world, and to the north and south pole, seem very doubtful, as may be judged, among other circumstances, from his description of Mexico. The best recent account of Mexico, but unfortunately short, is given by Chappe D'Auteroche in his voyage to California, London, 1778, 8vo. Memoirs of the Jesuits concerning California, 3 vols. 4to. Madrid, 1757. Noticias Americanas, Mad. 1801, 8vo. Cardenas, Historia de la Florido. Alzedo's Dictionary.

British Possessions.

Arrowsmith's map of North America. Smith's Upper Canada, 1 sh. 1800

The Travels of Hearne and Mackenzie, Lahontan, Charlevoix, Weld, &c.

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Native Tribes.

Colden's Five Nations. Lafitau's manners of the savages, but the figures do not represent the people, and the descriptions are not of unimpeached accuracy. Charlevoix, Du Pratz. Greenland by Egede, or Crantz. Travels by Carver, Hearne, and Mackenzie, &c. Adair's history of the American Indian's contains a few curious facts, distorted by an absurd system.

North American Islands or West Indies.

Large maps may be had of most of the islands. The West Indies by Jeffreys, 16 sh. Reduced 1 sh. Bolton's maps in Postlethwayte's dictionary, and those in the history of the West Indies, by Mr. Edwards.

Labat's voyages to the West Indies, 6 tomes 8vo. There are detached French voyages to several of their islands; but the accounts of the Spanish are, as usual, antiquated. Among the English are Ligon's Barbadoes. Sloane's Jamaica. Jeffrey's has published an account of the Spanish Islands, with thirty-two maps and plans, London, 1762, 4to. The best account of the British is that by Edwards. Raynal's work is sunk into disesteem, and is said by Mr. Edwards to have no more truth than Robinson Crusoe. He was one of the new French philosophers, who affect to be learned by special inspiration.

South America.

The map of La Cruz, engraved at Madrid for royal presents, 1775, and published at London, by Mr. Faden, 1799, 6 sh. the best yet given. Maps of some of the provinces are among the works of Lopez, but as usual of little accuracy. The environs of Quito, where the degree was measured, may be found in Bouguer, or in the French edition of Ulloa. In 1750, D'Anville published the province of Quito, 4 sh. But La Cruz must be preferred, though by a ridiculous failure, he has omitted to denote in a proper manner the great chain of the Andes, and the other ridges, there are also some political disguises. In 1774, Falkner, who had been a missionary, published a map of Patagonia in 2 sh. but it will be found very erroneous, when compared with La Cruz. The Rio de la Plata, and some other portions, are also published apart; and our assiento and contraband trade has contributed to improve the geography.

Spanish Possessions.

The maps above mentioned. Peru from the astronomical calculations of Condamine, &c. Paris, 1 sh. Malespina's Survey of the coast, from the Rio de la Plata to Panama, south and west, 5 sh. excellent.

The voyage of Ulloa. The best translation is the French, 2 vols, 4to. for in the English, 2 vols. 8vo. many important tables, &c. are omitted, and the prints so miserably reduced that they are alike useless and unpleasant. Voyage de Condamine. Lettre de Monsieur Godin. Bouguer, Figure de la Terre, for an excellent account of Peru. Dobrizhoffer, &c. Wafer's description of the Isthmus of Darien, 1699. Voyage de Frezier, 1717, 2 tomes, 12mo. Gily Storia de Terra Firma, 4 vols. Rome, 1780. Vidaurre Compendio del Chili, Bologna, 1776, 8vo. Viage al estrecho de Magellanes de orden de S. M. 4to. Molina Storia Naturale del Chili, Bologna, 1782, 8vo. Storia Civile del Chili, Bologna, 1787, 8vo. both good.

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PORTUGUESE.

The Portuguese are the most illiterate of European nations, and the accounts of their settlements in America and Africa obsolete and imperfect. Even the geography of their own country is a mass of errors, and if they have any maps of Brazil, they are without the smallest claim to common accuracy or reputation. Blauw published a map of Brazil, when a great part was possessed by the Dutch. The Spanish map of La Cruz is the best modern authority, though here D'Anville seem copied. In Bougainville's voyage to the Falkland islands, there are some local maps and plans.

The voyage of Bougainville, Sir George Staunton's account of the embassy to China, with the works of Faria translated by Stevens, Osorio, Barros the Portuguese Livy, &c.*

FRENCH.

The French maps of Cavenne may be compared with La Cruz; but the wide debated lands are now resigned to the French, with a yet further extension of territory towards the river Maranon.

The voyage of Des Marchais published by Labat, 4 vols. with a map by D'Anville, and many recent voyages, &c.

DUTCH.

There is a detached and rare, but coarse, chart of the shores and rivers, printed at Amsterdam: with several English charts of the river Surinam by Walker, 4 sh. &c. Guiana by Captain Thomson, 1783, 1 sh.

Bancroft's Natural History of Guiana. Stedman's Surinam, &c.

NATIVE TRIBES.

The map of La Cruz. History of Paraguay by Charlevoix. Dobrizhoffer de Abiponibus, Vienna, 1784. Molina's Chili, &c.

ISLANDS CONNECTED WITH SOUTH AMERICA.

Ulloa's Voyage. Bougainville's voyage to the Falkland islands. Cook's voyage, &c.

AFRICA.

The map of D'Anville, 1749, 3 sh. is still the best, excepting the parts explored by Park and Browne, and may be compared with that of Delisle. That published by Wilkinson, 1800, 4 sh. is decent, but there are several errors, and some mistaken applications of ancient geography. The detached maps by Rennell may be consulted. In Saugnier's voyage, 1791, there is a French map which may afford some hints, but there are many mistakes. The maps in Shaw's

* Lafitau's History of the discoveries and conquests of the Portuguese in the *New World*, Paris, 1733, 2 vols. 4to. or 4 12mo. ends with 1580, when Portugal became subject to Spain. It would have been valuable, as Robertson, in his History of America, has wholly omitted the Portuguese settlements, but the title is grossly erroneous, as the work is restricted to the Portuguese establishments in *Hindostan*, and is arranged according to the series of Governors of Goa, with some slight references to African affairs, nor is Brazil perhaps once mentioned in this history of Portuguese transactions, *dans le nouveau monde*, to use the words in the title, by a portentous error, which seems to evince that a man may be a Jesuit and yet want common sense.

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work are singularly confused, from the mixture of Latin and Arabian names, but deserve to be re-engraved with improvements. That in Lempriere's Morocco seems tolerably exact, and from it some important positions, as the city of Morocco, the chief ridge of Atlas, &c. may be collected.

Africa by Hasius, 1737, 1 sh. By Robert, 1760, 4 sh. By Gendron, Madrid, 1754, 1 sh.

Abyssinia.

The map in Bruce's travels may be compared with those of Tellez, that of Ludolf, and the Africa of D'Anville.

The travels of Alvarez, 1520. Those of Lobo, 1625, translated by Dr. Johnson. The account of Abyssinia by Tellez, Lisbon, 1660, fol. Ludolf's Ethiopia, 2 vols. fol. Poncet's journey, 12mo. or Lockman's travels of the Jesuits, 2 vols. 8vo. Bruce's travels, 5 vols. 4to.

Egypt.

The map of D'Anville and memoir. The Delta, by Niebuhr, &c. Lower Egypt, &c. by La Rochette, 1802, 1 sh.

Travels of Pococke, Norden*, Niebuhr, Browne. The late French accounts. Volney, Savary.

Mahometan States.

The maps of Shaw, for Algiers and Tunis. The general maps and Lempriere for the others. Fez and Morocco, after Tofino, Hoest, and Lempriere, by Canzler, 1797. Mediterranean, 4 sh. 1785, Faden.

Shaw's travels in Barbary, or rather in Algiers and Tunis; the best edition is the 4to. The travels of Poiret are trifling, and Chenier's book a feeble compilation. Lempriere, good. Hoest, 1779, in Danish or German, good. Agrell in Swedish, 1800. For Tripoli, Bruce, and the publications of the African Society may be consulted. The curious reader may look into Addison's West Barbary, 1671, or Ockley's, 1713. In general, Dr. Dapper's account of Africa, or Ogilby's translation, may still be used with advantage, as there are few more recent accounts of several countries, whence their labours in this portion alone of the globe are not wholly superannuated†. Sanson published at Paris a description of Africa, 1656, 1660, 4to. with several maps.

Western Coast.

There are old maps of Congo, &c. in the account of Lopez or Pigafetta, Mandelslo, Dapper, Cavazzi, &c. and small detached maps by D'Anville, 1731. Of the river of Congo there is a chart by Maxweil, 2 sh.

A description of Congo, by Lopez, or rather by Philip Pigafetta from the papers of Lopez, was originally published in Italian, Rome, 1591, 4to. whence it was translated into English by Hartwell, 1597, 4to. in Latin it forms the first part of the Smaller Voyages of De Bry, 1598, fol. and there is an appendix by Bruno, 1625, fol.

* There is a French edition, 1800, 4to.

† Dapper's African islands were published 1668, and his Africa, 1670 in Dutch. The plates are used by Ogilby, 1671, and are much worn in the French translation, 1686. Sanuto's Africa has some curious maps.

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Descrizione Istorica delli tre Regni, Congo, Matamba & Angola, compilata dal P. Gio. Ant. Cavazzi. Bologna, 1687, fol. pp. 933, large print, with plates; or Milan, 1690, 4to. This curious work was translated by Labat in his Ethiopie Occidentale, Paris, 5 tomes, 12mo. which must not be confounded with the Afrique Occidentale of that voluminous compiler. In 1776 Proyart published at Paris his history of Loango, from papers of French missionaries 1766, with a new but imperfect map, a curious and interesting work*.

Labat's Collection. Bosman's Guinea. Norris's Account of Dahomey. Park's travels. Adanson's Senegal.

The Cape.

The survey by Barrow. The travels of De la Caille, Paterson, Sparman, Barrow, &c. As repeated falshoods have been detected in Vaillant's books, especially the last Journey, they are chiefly to be read for amusement.

The Eastern Coast.

There is a small map by D'Anville, called Ethiopie Occidentale, which comprises Mocaranga, and other dominions of the Monomotapa or emperor, 1732; but of these singular and interesting countries the geography and descriptions are alike imperfect, nor is there even a missionary modern account of Mocaranga, Sofala, Sabia, &c.† The letters of the Jesuits probably present some materials; but Lockman's is an injudicious compilation, often containing the most trivial matters. The German voyages of Bucquoy 1771, and Thoman 1788 may be consulted.

Madagascar.

Flacourt has published a map: and Rochon has been contented with one of 1727. Bellin has given a large map. There are several French accounts, Rochon's being one of the latest.

African Islands.

General map. There are detached maps of the isles of Bourbon and Mauritius, &c.

Rochon's Madagascar. Grant's Mauritius, &c. For Kerguelen's Land. Cook's last voyage. Glas's Canary islands, &c. For the Azores, see Portugal, as they strictly belong to Europe.

HYDROGRAPHY.

Though charts be not considered as essential in the study of geography, yet as a few of islands, &c. are admitted into collections of maps, it may not be improper to offer some hints on the subject. In a large or public library indeed the best charts should appear, as well as the best maps. But in general, the chief purchasers of charts are merchants for their counting houses, and captains and other marine officers, who procure the most recent and authentic adapted to the voyage. Such are often bound up together, in the form of a narrow oblong folio, and are styled Neptunes, Pilots, &c. Thus the East India Pilot contains more than a hundred charts for a voyage to the East In-

* See also Zucchelli's Account of the mission in Congo, published about 1712. Angelo's Voyage to Congo, 1666, is in Labat, tome v.

† Le Grand, in his Dissertations annexed to Lobo's Abyssinia, (p. 269, Johnson's tr.) quotes Dos Santos *Etiopia Orientale*, Evora, 1609, of which there is a French translation, Paris, 1684, 12mo.

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dies, or even to China, including detached charts of the isles, coasts, and harbours, which may be visited from choice or necessity. In like manner the African Pilot presents charts necessary for a voyage to the Cape: and there are Pilots for the British coasts, the Baltic, Mediterranean, West Indies, &c. Each chart may also commonly be had apart, and is often accompanied with sailing directions, as well as the Neptunes and Pilots, in a detached octavo form. The Dutch are careless navigators, and the best charts are the English and French. Yet the Dutch, in the sixteenth century, seem to have been the first inventors of the collections called Neptunes, Flambeaux, Colonnes de la Mer, &c.*

The most celebrated French name is that of M. D'Aprés de Mannevilette, whose *Neptune Oriental*, or Survey of the Indian ocean, &c. is highly and deservedly esteemed by all seamen. The charts of Bellin, Engineer of the French Marine, 1737....1767, chiefly relate to the Atlantic, and their estimation is principally confined to France. His *Neptune General* fills two or three thick folio volumes. Bellin also published a small maritime atlas, in 5 vols. and a separate description of Guiana and its shores. His *Neptune Francais* presents the coasts of France, Spain, England, Holland, &c.†

In England the Neptunes and Pilots are always composed of detached charts, by various authors and observers. Mr. Dalrymple, in his zeal to promote geography and navigation, has published a prodigious number, perhaps a thousand, detached charts of isles, harbours, coasts, straits, shoals, &c. chiefly in the Oriental world. Among other works may be mentioned the American coasts, or Atlantic Neptune, by Des Barres, 1776, (too full of neology;) the various Pilots published by Mount and Davidson, Murdock's Atlantic ocean, published by Faden, Mackenzie's charts of the shores of Scotland and Ireland, Huddart's chart of the Western isles, Captain Ross Donnelly's of Ferroe, the Orkney's, Shetland, &c. 1797, which may be compared with Lowenorn's chart of the Shetland isles, 1767. Of the English coasts there are various charts, and it might be rash to indicate a preference. For the present purpose it will be sufficient to commemorate a few others.

Arrowsmith's chart of the Pacific 9 sh. And of the Asiatic islands, 4 sh. The Indian ocean, 4 sh. The South sea Pilot, 28 sh.

Mr. Faden has also published several charts of great reputation, as:

Parts of the Baltic, 1802, from Nordenanker and Wybe. Gulf of Finland, by Captain Goff, 1785, 4 sh. Gulf of Florida; Windward passage; Malespina's coast of South America, 1802; Gulf of St. Lawrence, 4 sh. Coasts of Labrador and Newfoundland, by Lane; Bay of Brest, &c. 1802: with several by La Rochette, drawn from the best materials.

Some valuable charts have been published by Laurie and Whittle, successors to Mr. Sayer; and by others, such as Steel, Moore, Mount and Davidson, Gilbert, Heather, &c. whose reputation can only be justly estimated by seafaring men. Even in a small collection the charts of several islands, as the Azores, the Bermudas, the Canaries, &c. will be found interesting.

The coasts of Spain, published at Madrid, 1798, by Tofino, may be considered as an accession to European geography; and the same

* The hydrographic work of Dudley Duke of Northumberland, Florence, 1647, 4 vols. fol. is not only curious but of some value.

† There is also a *Hydrographie Francaise* lately compiled by Dezauche, one of the chief venders of charts at Paris, and which contains recent French charts of most parts of the world.

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astronomer has given charts of some parts of Barbary.

These hints may suffice for the geographical student, but it may be added, under this department, that there are several voyages, chiefly published in France, professedly undertaken for the purpose of improving astronomy and geography: such are the voyages of Bouguer, 1749; Chabart, 1753; Courtanvaux, 1768; Cassini, 1770;* but particularly the *Voyage par ordre du Roi*, by De la Crenne, Borda, and Pingré, Paris, 1778, 2 vols. 4to. abounding with important observations, which have radically improved the geography of several countries. The voyage of Kerguelen to Iceland, Greenland, Shetland, Norway, &c. Paris, 1771, or Amst. 1772, 4to. may also be mentioned in this class.

It is to be wished that travellers, instead of overwhelming us with ridiculous voyages to the Levant, would examine the geography of such countries as are little known, in which case they would contribute infinitely more to the stores of modern knowledge.

These few observations on hydrography may be considered as introductory to a brief list of the circumnavigations, and more general voyages, which cannot well be arranged under particular countries.

The voyage of Magalhaens round the world was the first, for it would be ungenerous to deny the title, because that great navigator was slain in the Philippines. Pigafetta, who accompanied Magalhaens, drew up an account of this memorable voyage in Italian, which has recently been published in a splendid manner. But for general use the French translation, Paris, an. 9, 8vo. will be found interesting.

The voyages of Sir Francis Drake, London, 1653, 4to.

Dampier's voyages round the world, London, 1729, 4 vols. 8vo. including Wager's voyage.

Gemeli Carreri's voyage round the world, Naples, 1699, 6 vols. He was a lawyer, and left his country from some domestic uneasiness. That he really performed this voyage seems now admitted; but the book is trifling, and a voyage round the world is no longer a matter of wonder.

Anson's voyage round the world.

Cook's voyages, with those of Dixon, Portlock, Vancouver, Bougainville, La Perouse, &c.

To enumerate the collections of voyages would be infinite. The French *Histoire General des Voyages* is more amusing than accurate, and cannot admit of quotation or reference, as the originals must be consulted‡. The *Novus Orbis* of Grynæus is the oldest collection; which was followed by those of Ramusio, Hakluyt, and Purchas. Bergeron's curious collection appeared 1630, &c. 8vo. reprinted at Leyden, 1742, 2 vols. 4to. In 1663 Thevenot published his first volume, which was followed by two others. Ray's collection, 1693. 8vo.‡ Harris's collection appeared in 1705, 2 vols. fol. being a good general history of voyages: it was afterwards improved by Dr.

* There is also a journey to Germany by the same author, to examine the geography of the Palatinate, &c. Paris, 1776, 4to.

† In Spanish there is *el Viagero Universal* by Estala, Madrid, 1796, &c. which will occupy about 40 vols. 8vo. The description of the United States and Mexico appeared in 1799. Unfortunately Spanish and Portuguese books can scarcely be procured in London.

‡ Dufresnoy mentions a collection, London, 1674, 4 vols. fol. and one, 1704 (Churchill's) 8 vols. fol. with a preface by Locke.

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Campbell, 2 vols. fol. 1744. 1748. Stevens's collection of translations, 2 vols. 4to. 1711. Voyages from the Harleian Library, 2 vols. fol. 1745. Churchill's collection, 6 vols. fol. 1752, new edit. Astley's collection, 4 thick vols. in 4to. rare and valuable, 1745; the editor is called Green in some catalogues, certainly a man of great learning and industry. De Brosses Navigations aux Terres Australes, Paris, 1756. 2 vols. 4to. translated by Callander, Edin. 1766, 3 vols. 8vo. There are several modern English collections; by Salmon, 2 vols. fol. 1755. Guthrie, 7 vols. 8vo. 1767, &c. Those by Hawkesworth and Dalrymple are in superior estimation. To which may be added the recent collections by Dr. Mavor. In German is the *Sammlung*, &c. a collection of the best and newest travels, Berlin, 1765....1782, 23 vols. large 8vo. In Spanish the *Viagero Universal*, already mentioned; but this last is rather a history of voyages.

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